

Figure 1

TOP SECRET

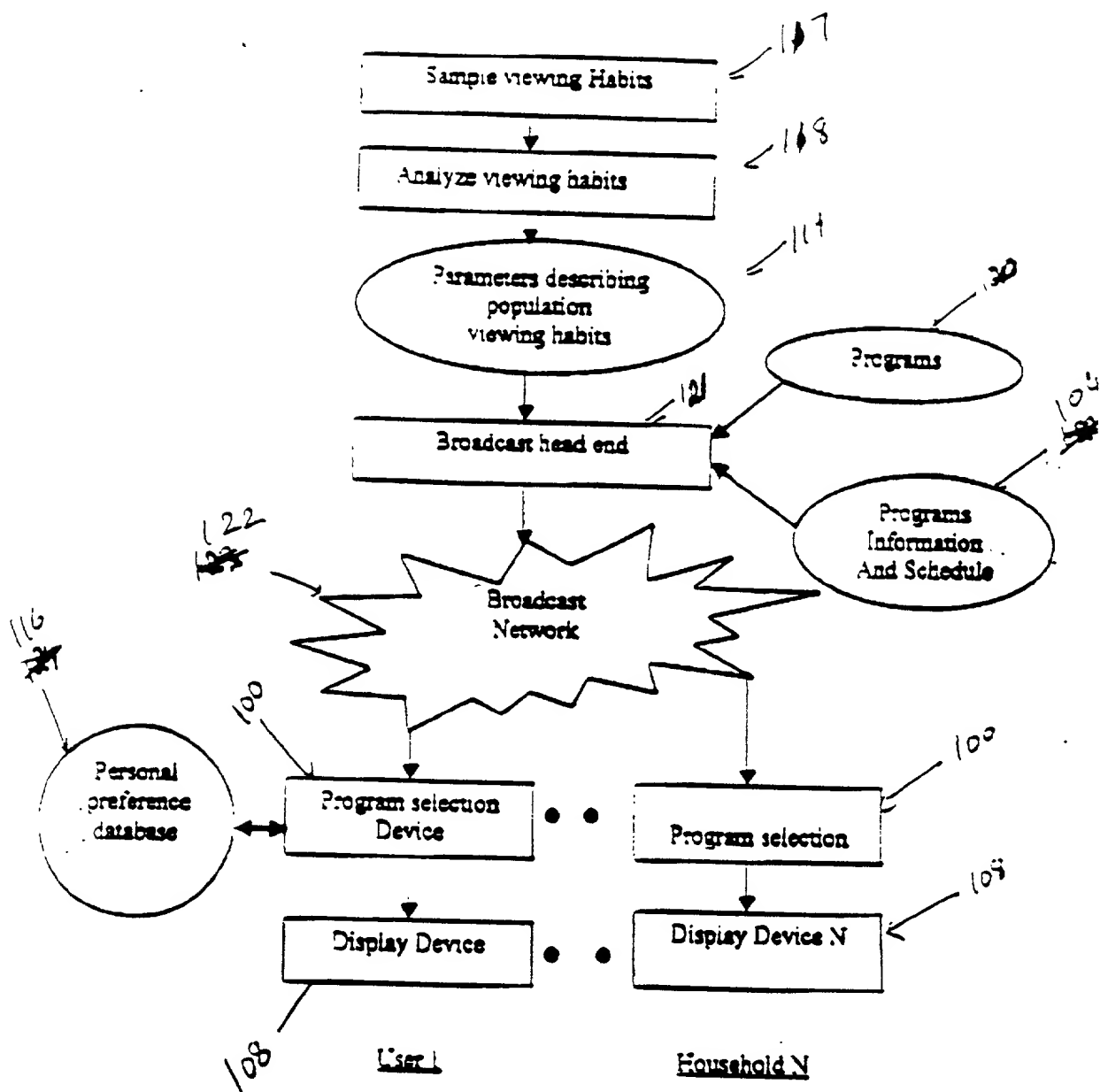


Figure 2

Variable	Mean	SD	Min	Max
Age	35.2	12.5	18	65
Gender	0.45	0.50	0	1
Marital Status	0.60	0.49	0	1
Education	12.5	2.1	9	16
Income	3500	1500	1000	8000
Health Status	0.70	0.46	0	1
Exercise Frequency	2.5	1.5	0	5
Stress Level	4.0	1.0	1	5
Sleep Quality	3.5	1.2	1	5
Dietary Habits	2.0	1.0	0	4
Work-Life Balance	3.0	1.0	1	5
Family Support	4.5	1.0	1	5
Community Involvement	2.0	1.0	0	4
Life Satisfaction	4.0	1.0	1	5
Overall Well-being	3.5	1.0	1	5

124

125

Example 2

Examples for traits

Movie
Adventure
Sports
Mad About You
dynamic trait 1
Dynamic trait 2
NBC NEWS
FRIDAY Movie
Premier Mad About You

↑
126

Examples for Liking for viewer N

Movie = 1
Adventure = 3
Sports = 0.3
Mad About You = 5
dynamic trait 1 = 3
Dynamic trait 2 = 5
NBC NEWS = 13
FRIDAY Movie = 18
Premier Mad About You = 15

↑
127

Figure 4

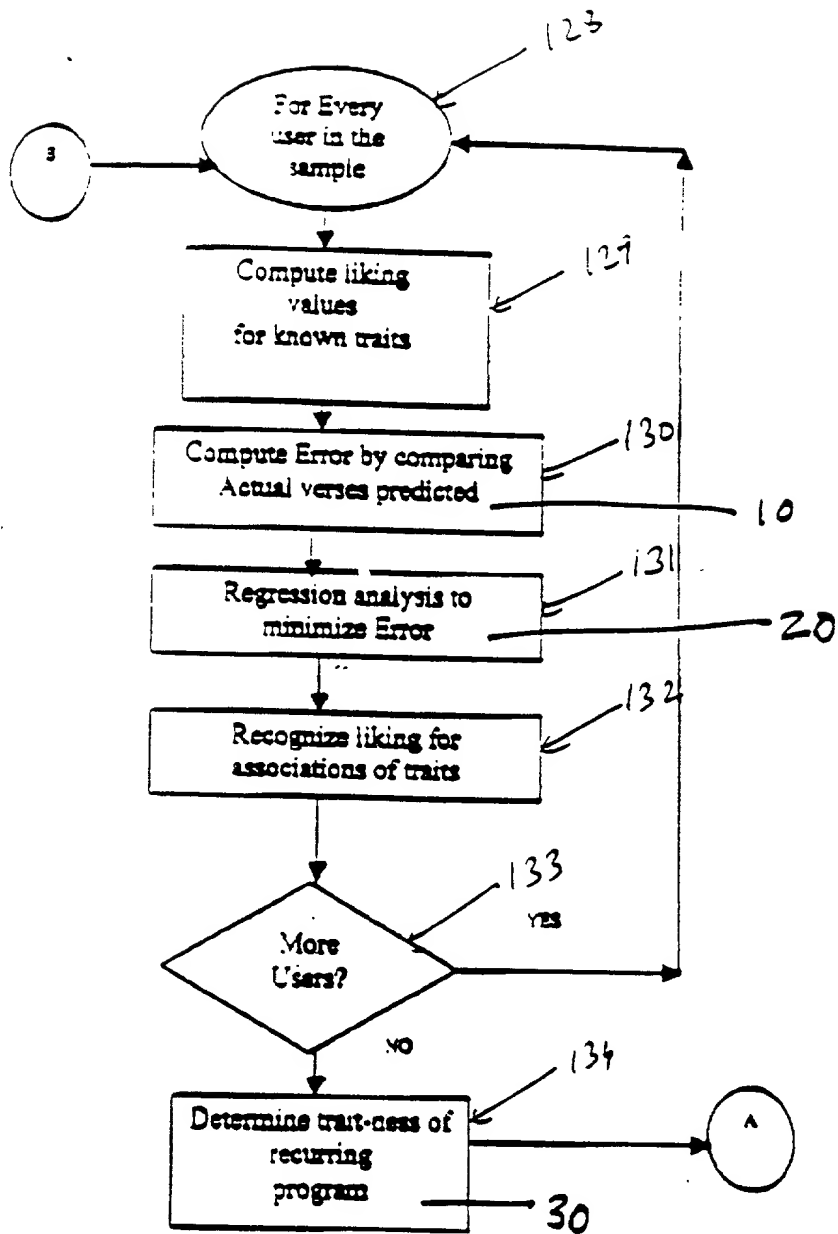


Figure 5(a)

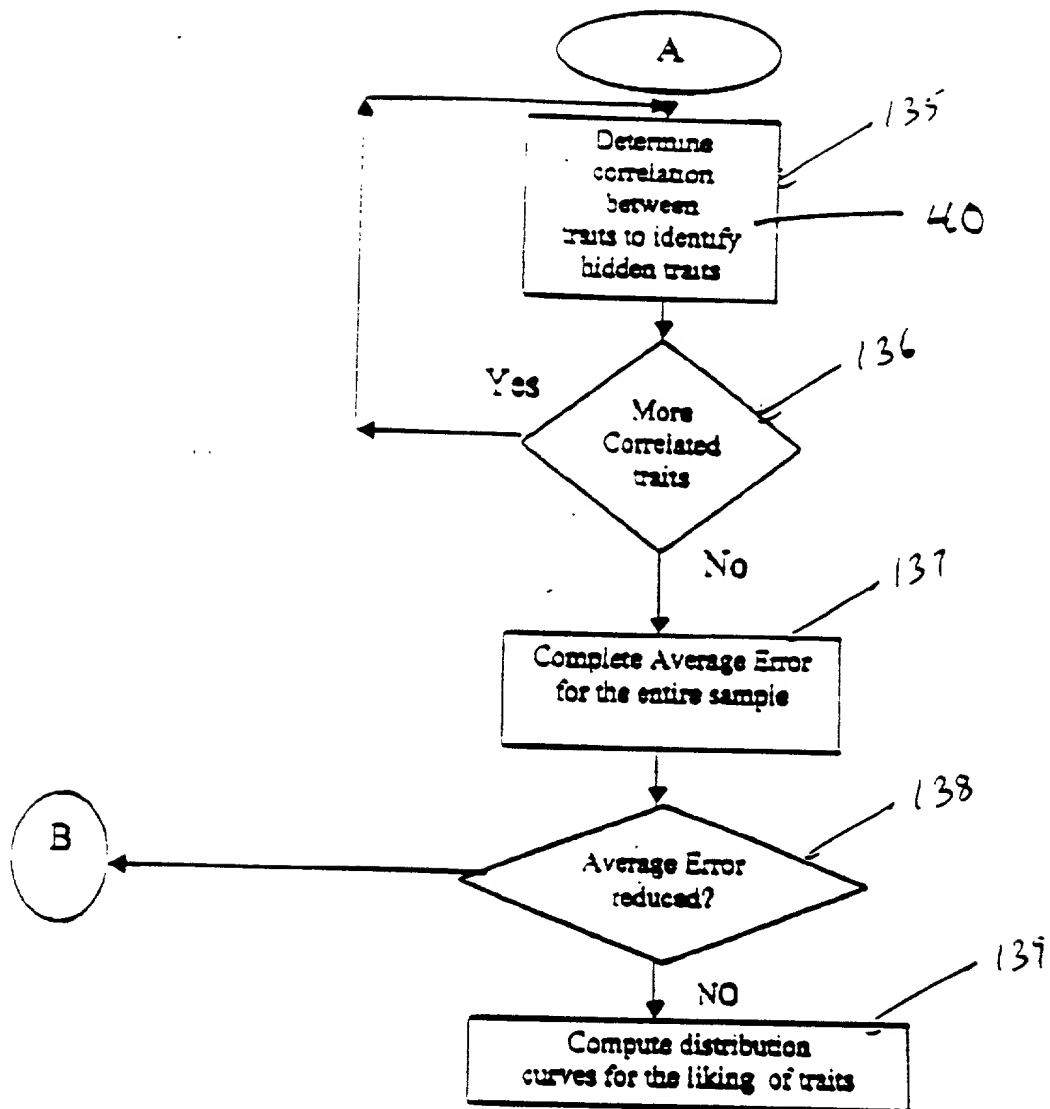


Figure 5(b)

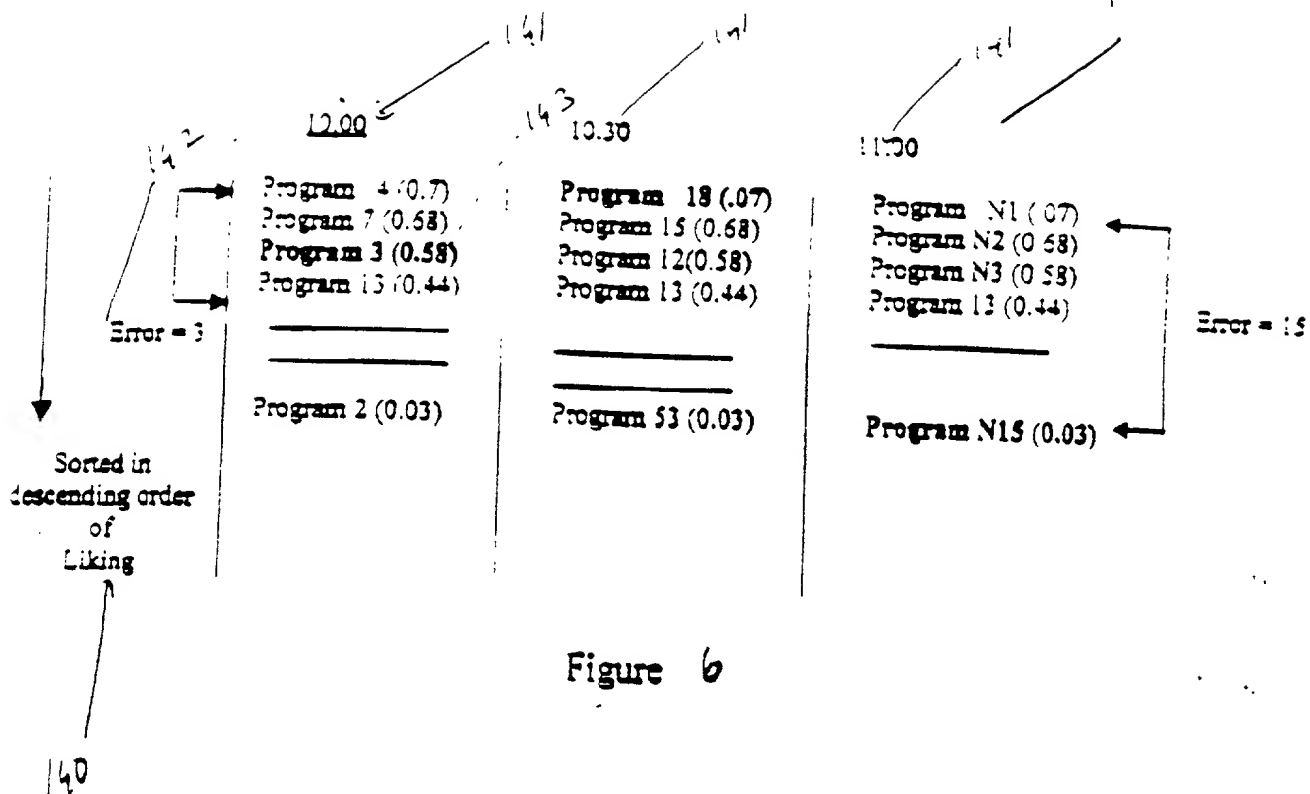


Figure 6

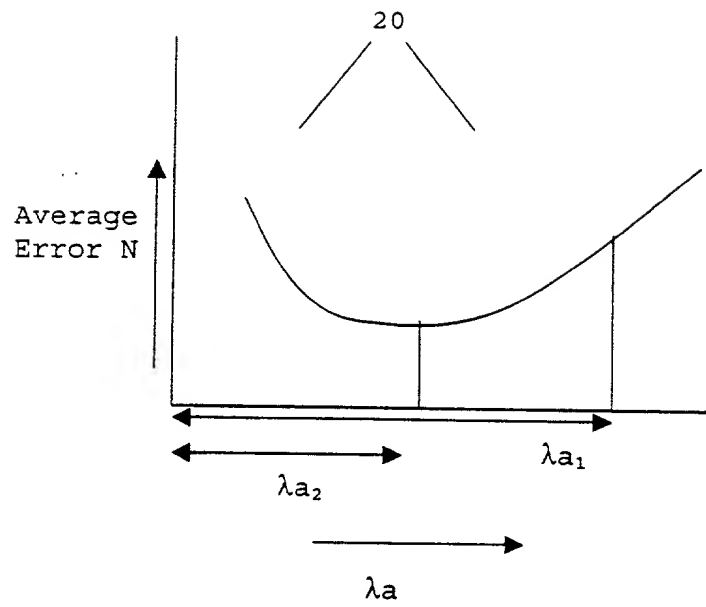
Figure 7

Current Liking Value

$$\begin{aligned}\lambda a_1 &= 2 \\ \lambda b_1 &= 5 \\ \lambda c_1 &= -3 \\ \lambda d_1 &= 0\end{aligned}$$

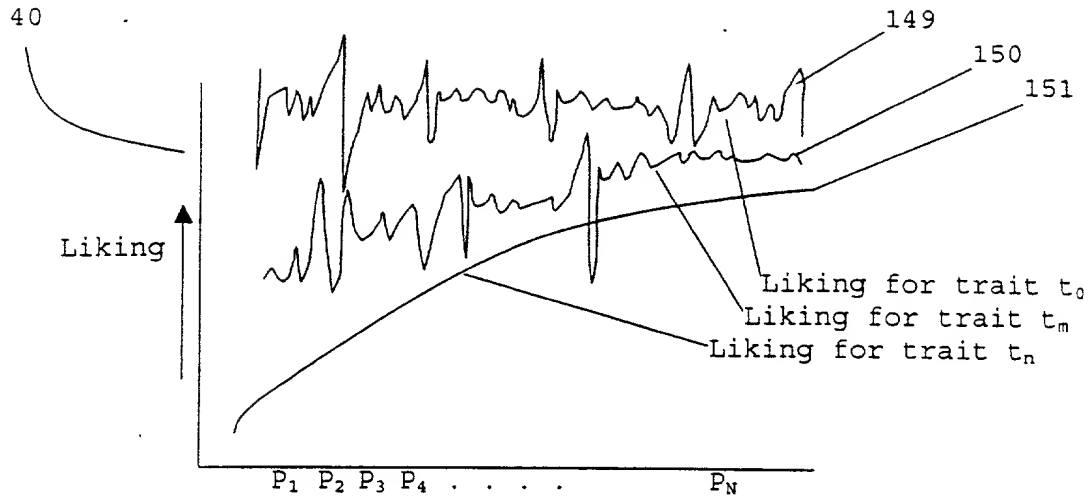
Next Liking Value

$$\begin{aligned}\lambda a_2 &= 1.5 \\ \lambda a_1 &= 5 \\ \lambda a_1 &= -3 \\ \lambda a_1 &= 0\end{aligned}$$



$$\begin{aligned}(\lambda b &= \lambda b_1 \\ \lambda c &= \lambda c_1 \\ \lambda d &= \lambda d_1 \\ &\vdots \\ &\vdots \\ &\vdots)\end{aligned}$$

Figure 8



t_m and t_n are correlated

and

t_m can be expressed as $t_m = t_x + t_m'$

t_n can be expressed as $t_n = a_x t_x + t_n'$

Computing Traitness of a trait is a program

30

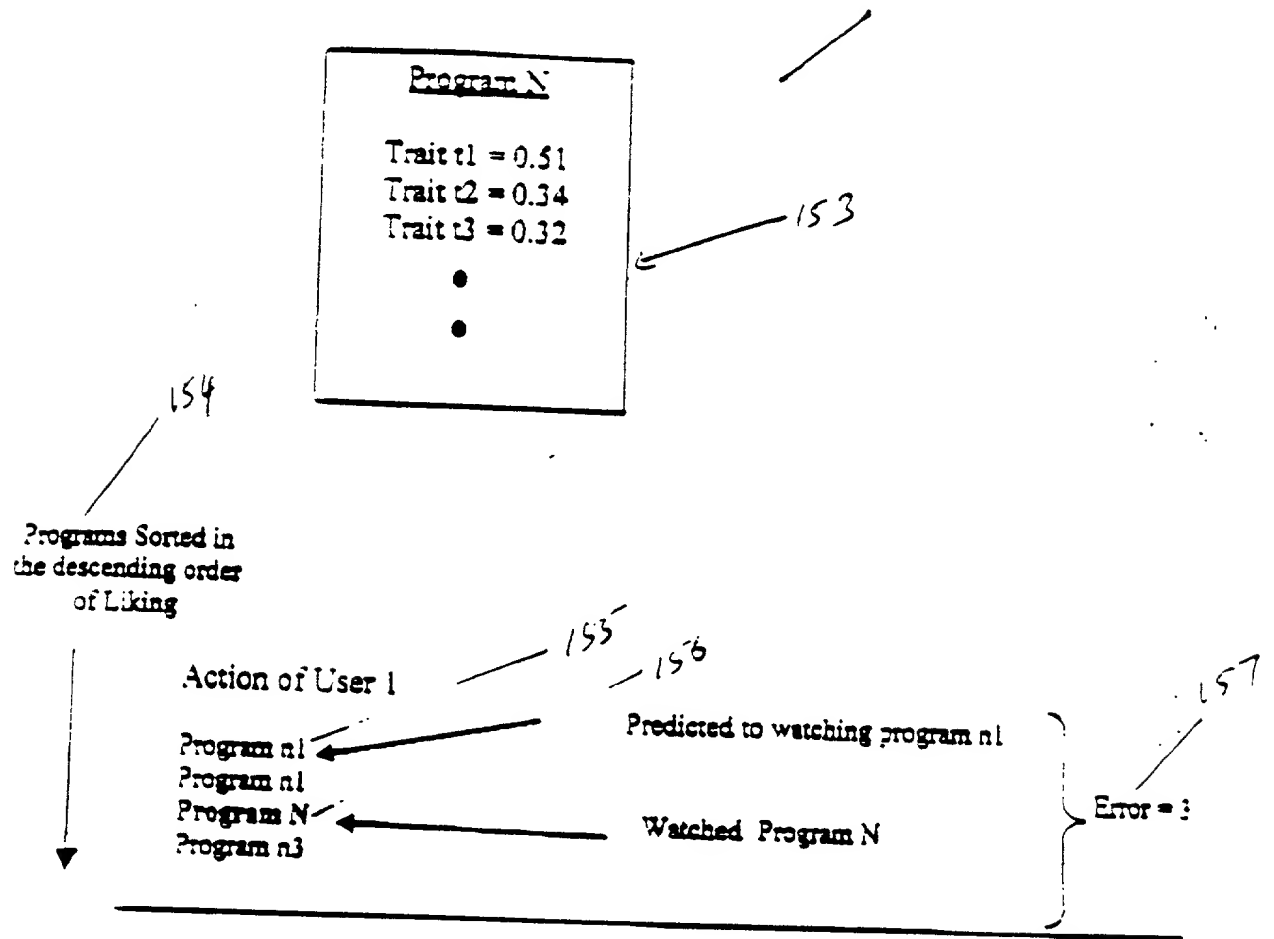


Figure 9(a)

Computing Traitness of a trait a program

30

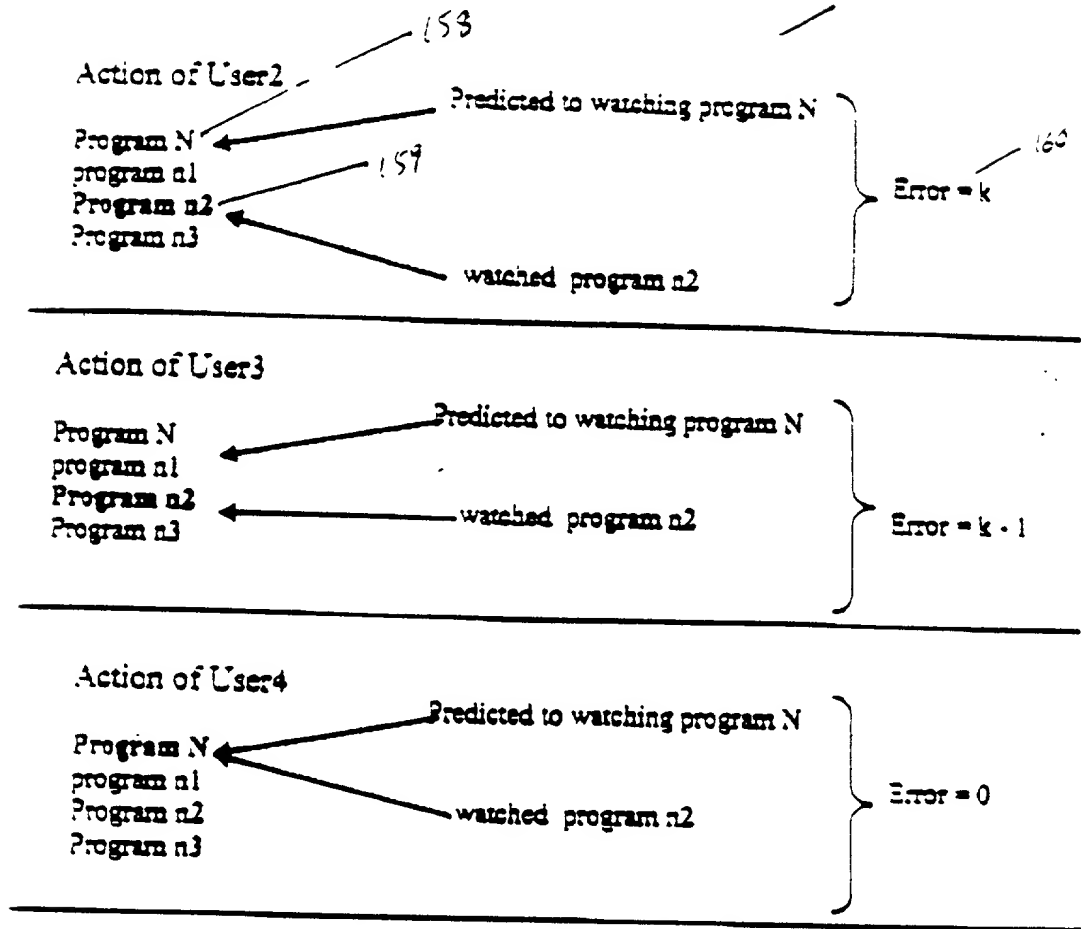
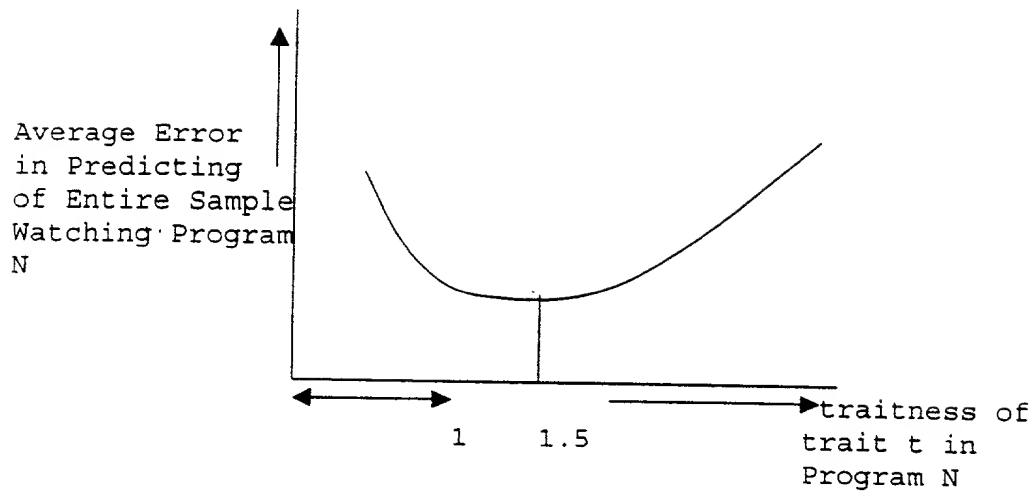


Figure 9(b)

Figure 9(c)



Optimal value of traitness

e.g. comedy-ness in Seinfeld = 1.5
comedy-ness in Frasier = 0.89

Example for Liking Distribution Record format

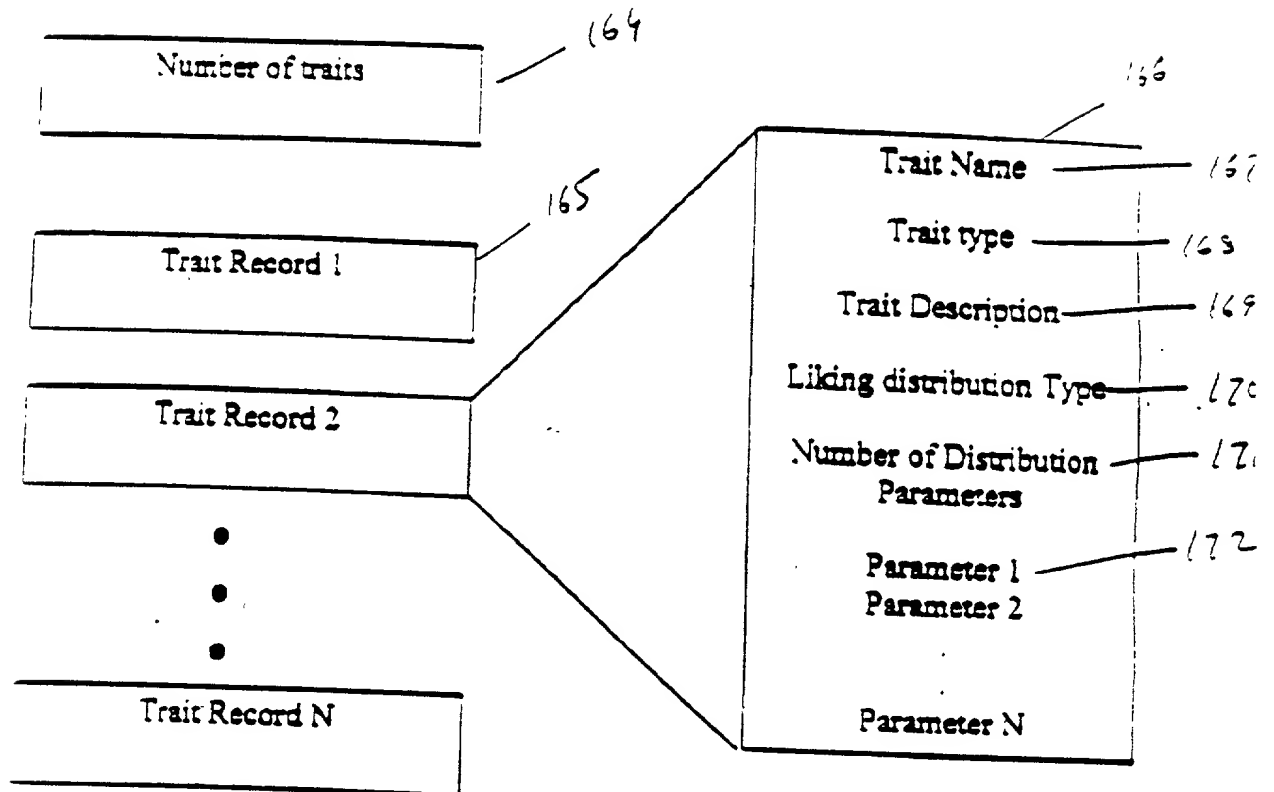


Figure 10

Some Sample Values For Fields in trait Record

Trait type

Static,
dynamic
Association
Generated

Trait Description

(NBC, "NEWS"),
SUBSTRING("CIA") IN DESC.
TITLE

Distribution

Normal
Exponential
Defined type 1
Defined type 2

Distribution Parameters

Mean = 13, Deviation = 2

Figure 11

604250-933600

Example for Traitness of recurring Programs

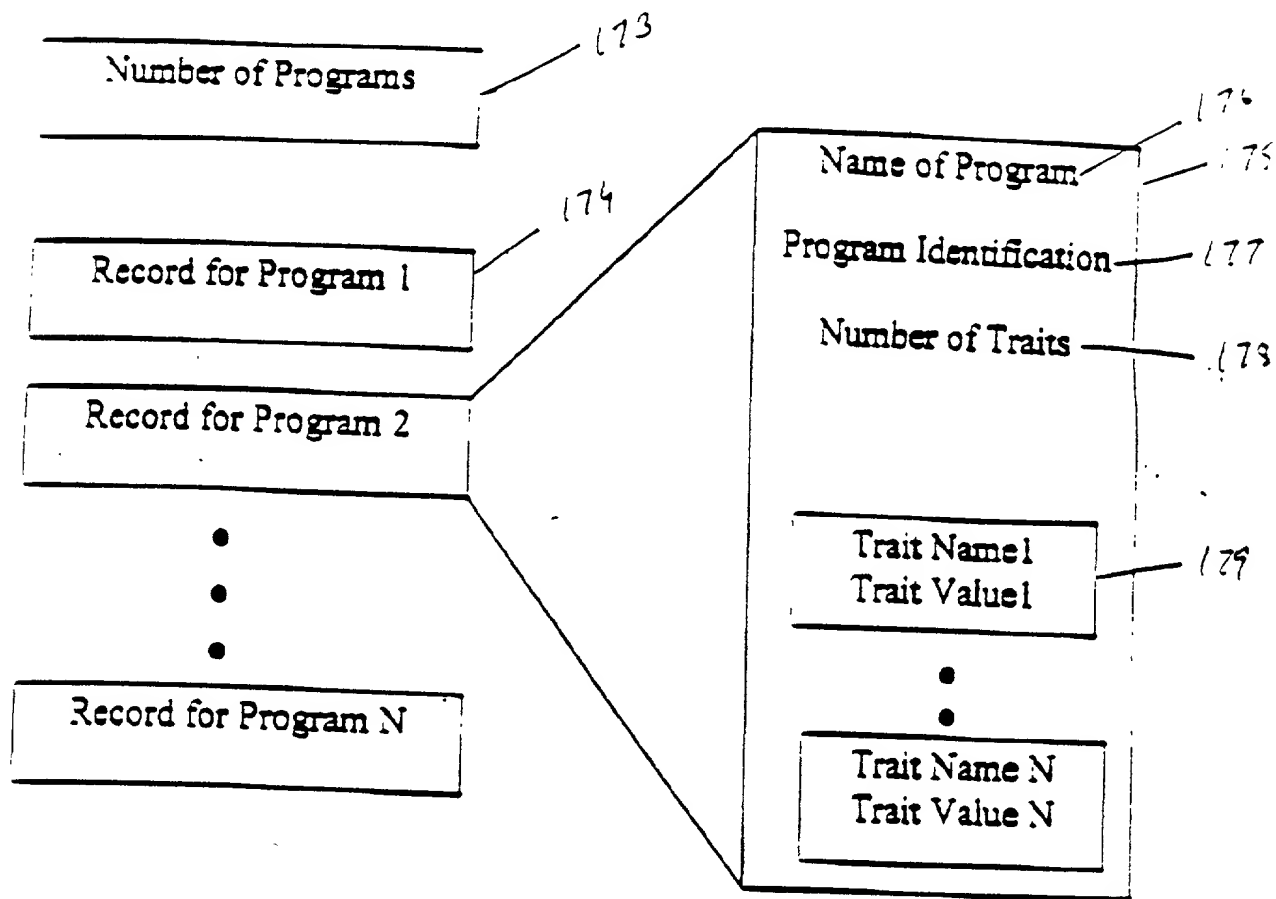


Figure 12

Example For Broadcasting traitness as a part of EPG Data

Program Info

Seinfeld,

NBC,

Comedy = 0.07

sitcom,

Dynamic trait 1 = 0.1

•

•

Actor = Seinfeld

Figure 13

TOEBO"SEEEBO

Example for Selection Record

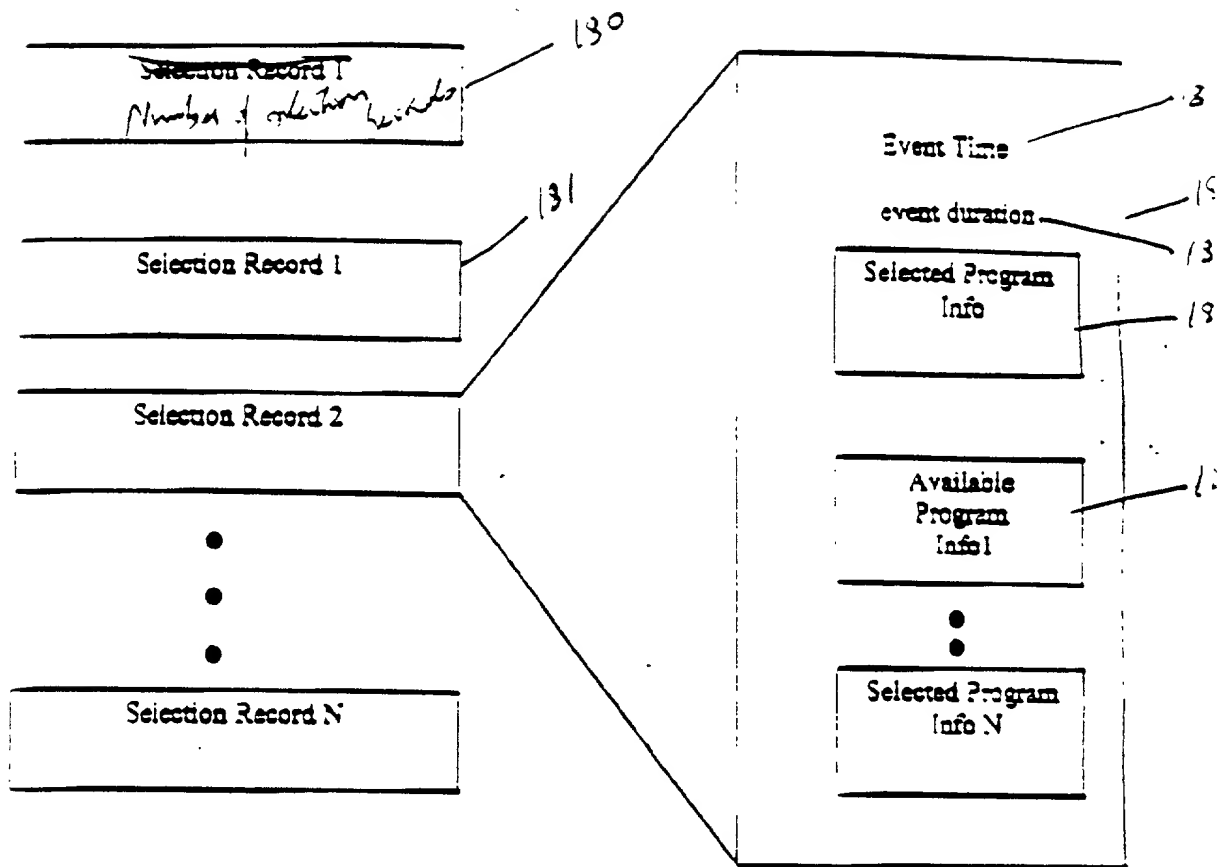


Figure 14

Generation of User Selection History

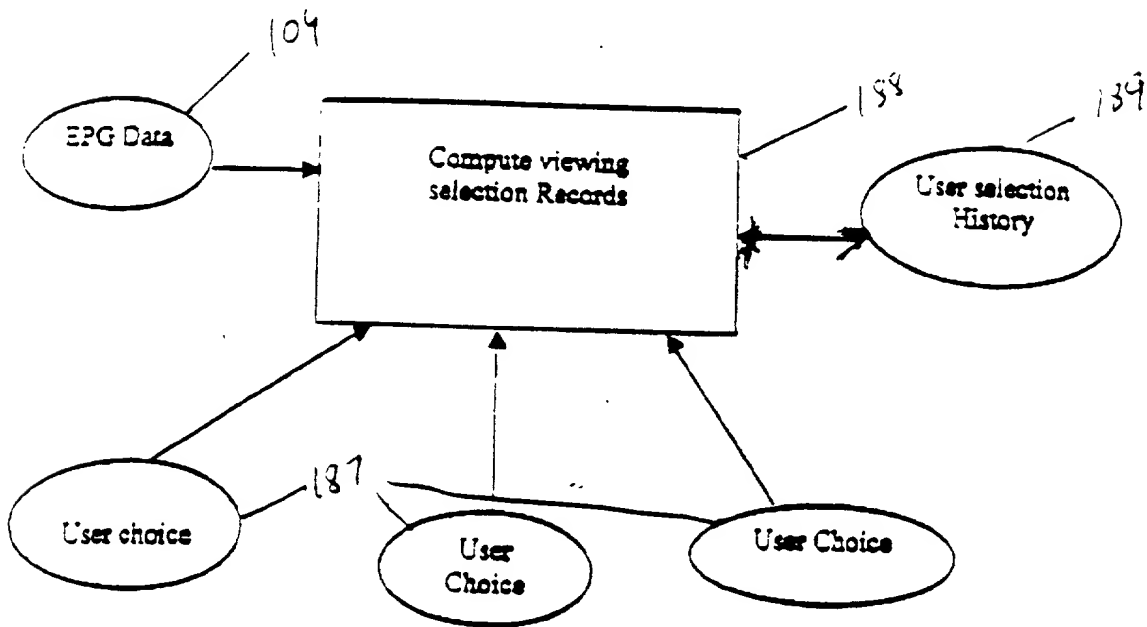


Figure 15

Learning Liking for traits for a given user

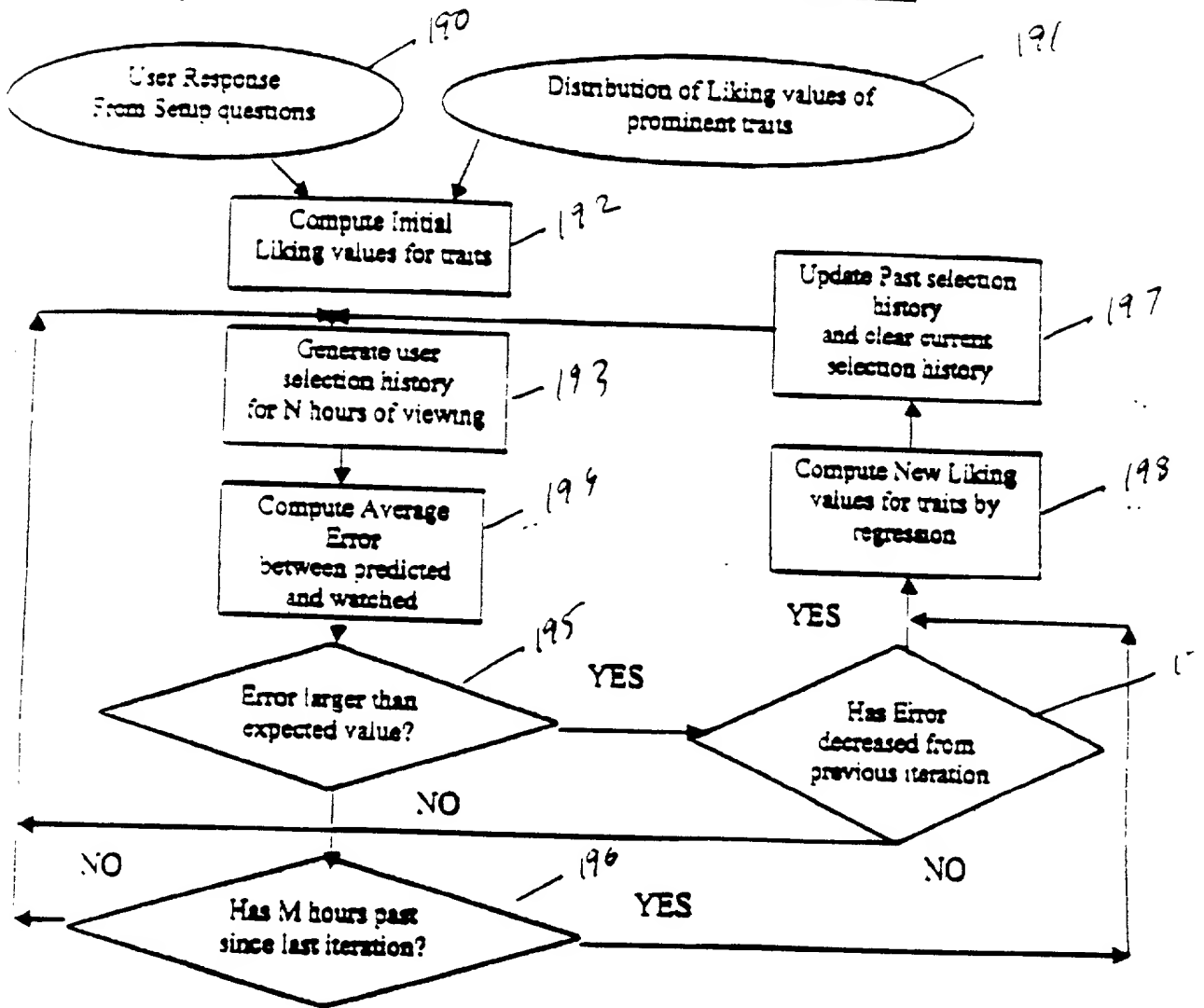


Figure 16

Computing Relevance

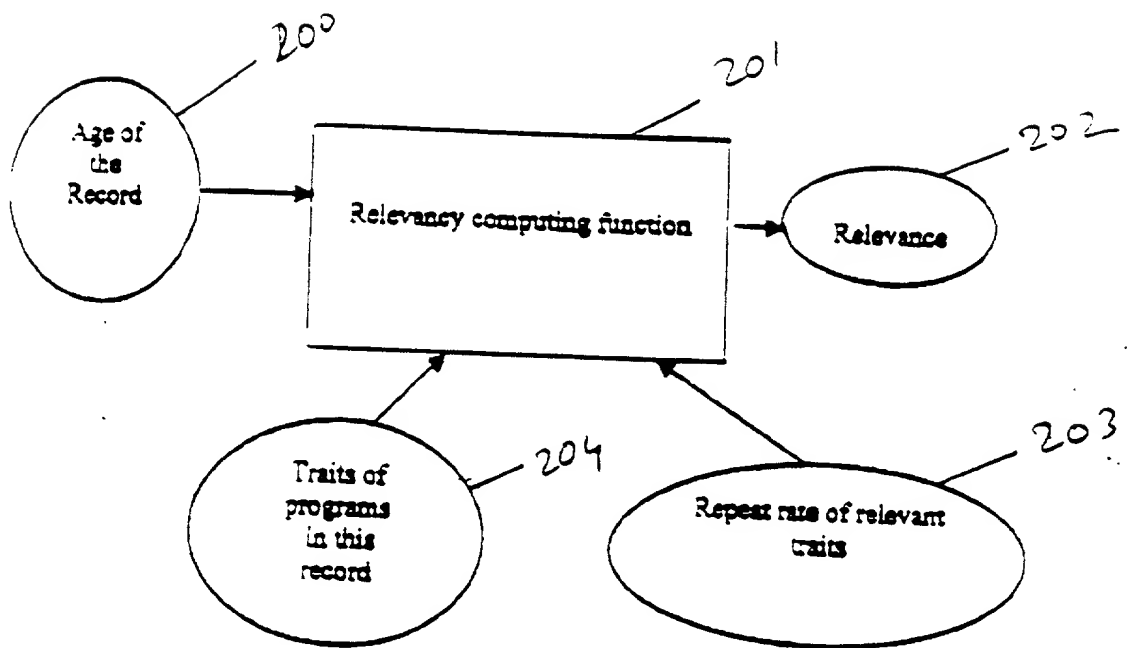


Figure 17 (a)

Figure 17(b)

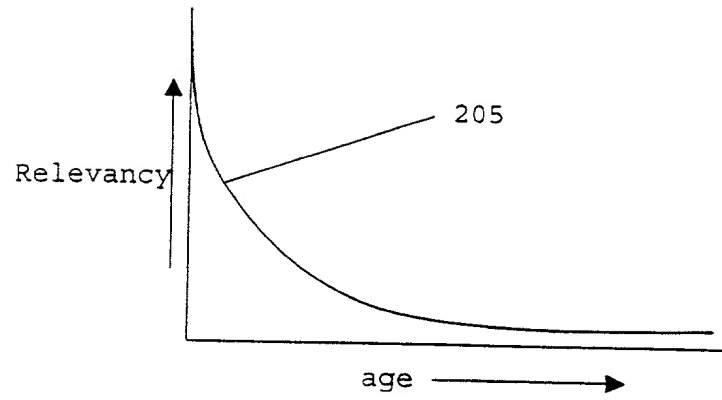
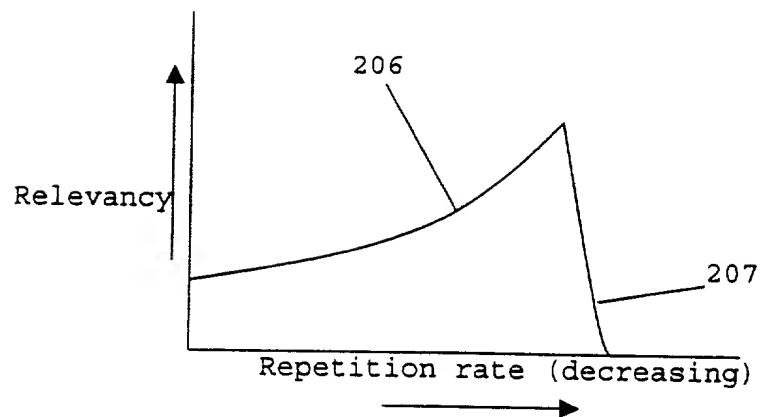


Figure 17(c)



Updation of past History

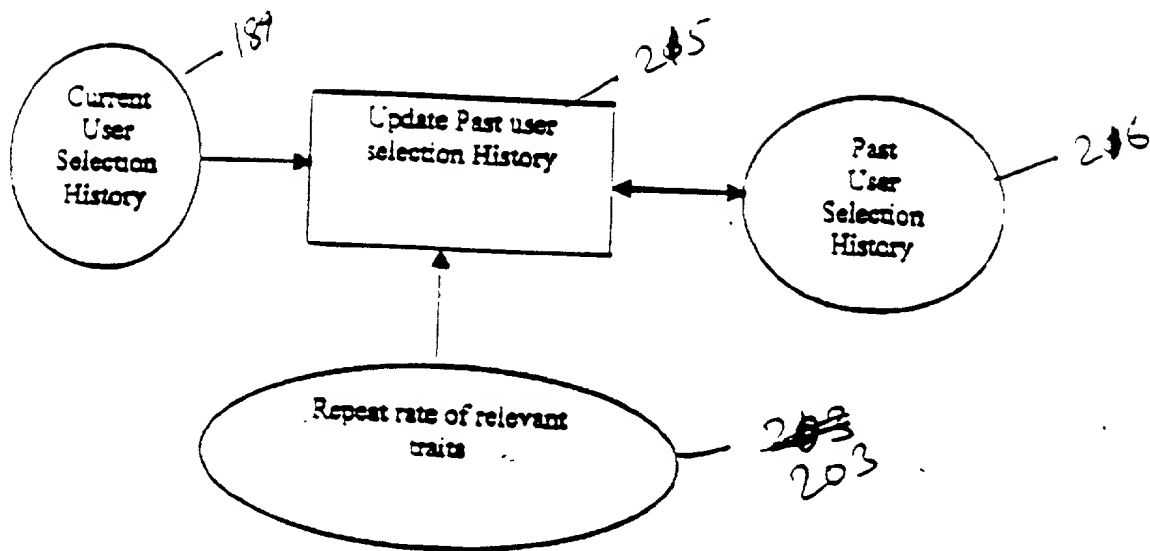


Figure 18(a)

197

Update of Past Selection History

207
For every selection record in the current selection history

208
Is there space in the past selection history to add this record

YES

209
More
Add this record in past selection history

NO

210
Compute relevancy for all records in past history

211
Sort records in past history based on relevancy

212
Remove the least relevant record from the past history

Figure 18(b)

Computing liking on clientside

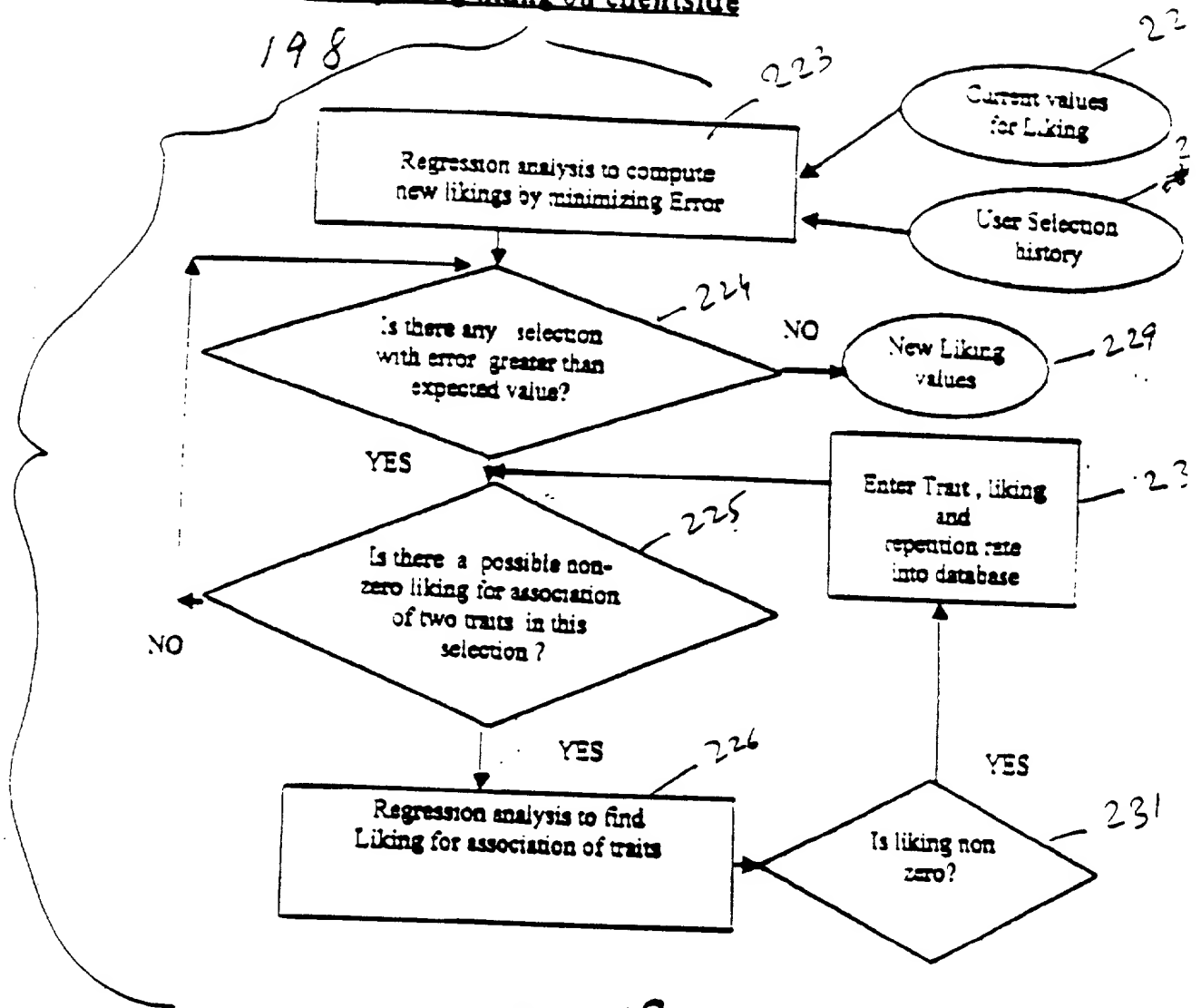


Figure 19

Computing scores for programs for future prediction

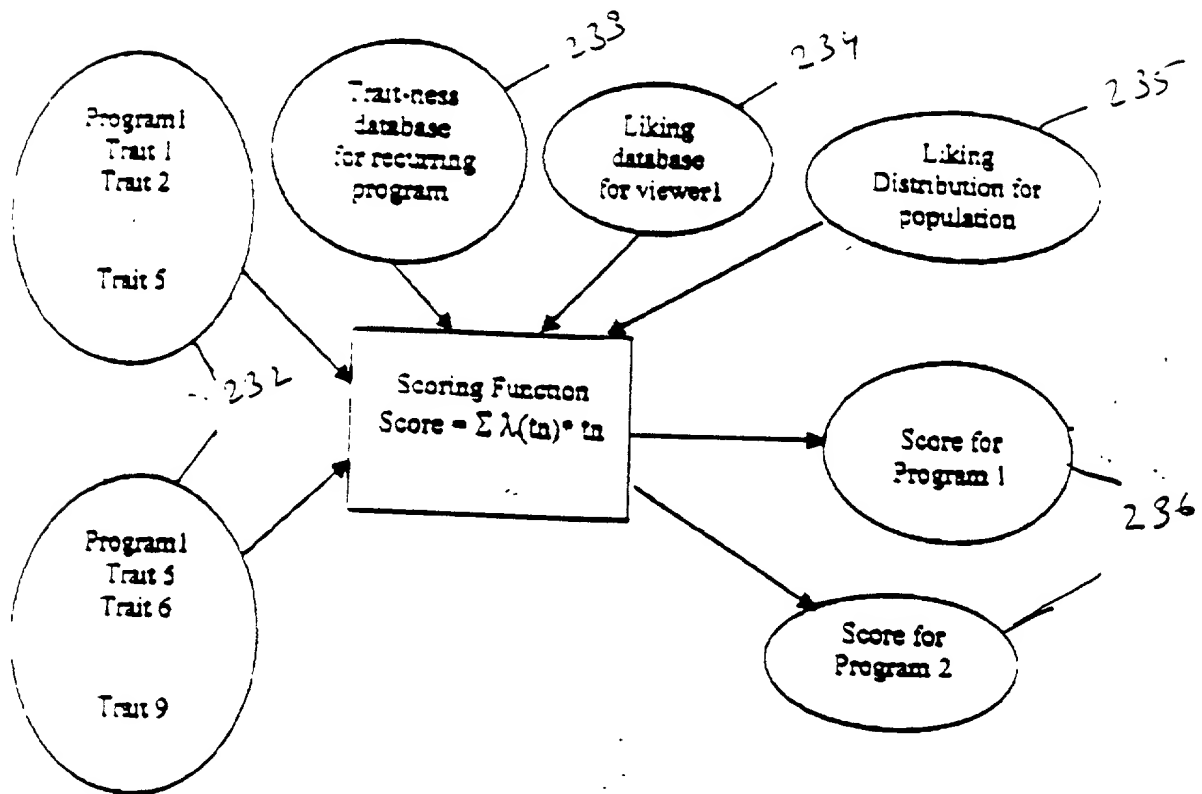
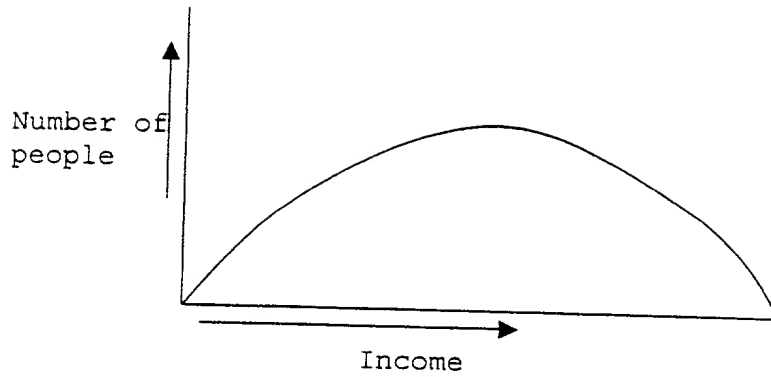
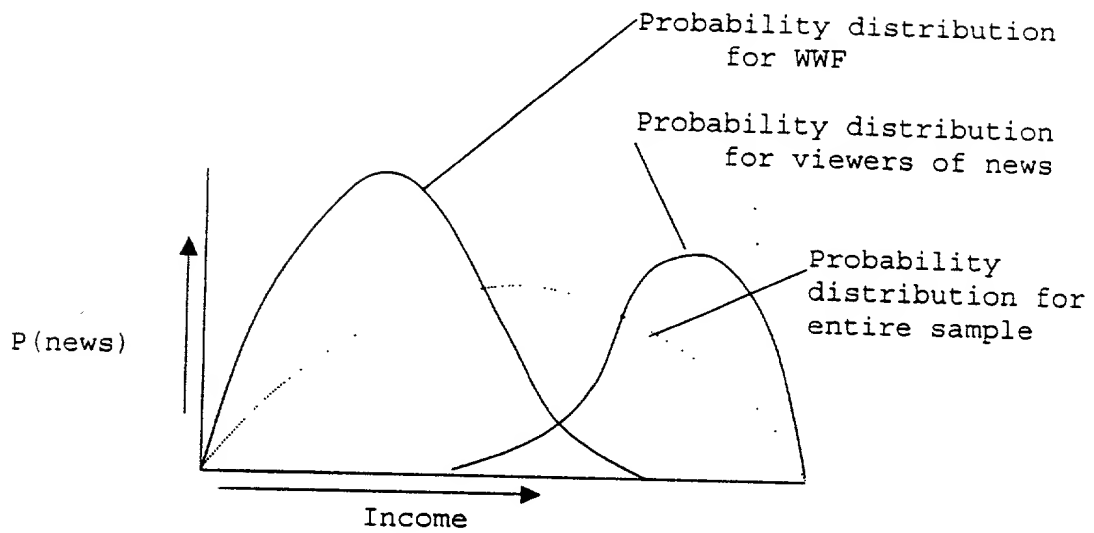


Figure 20

Figure 21(a)



(i)



(ii)

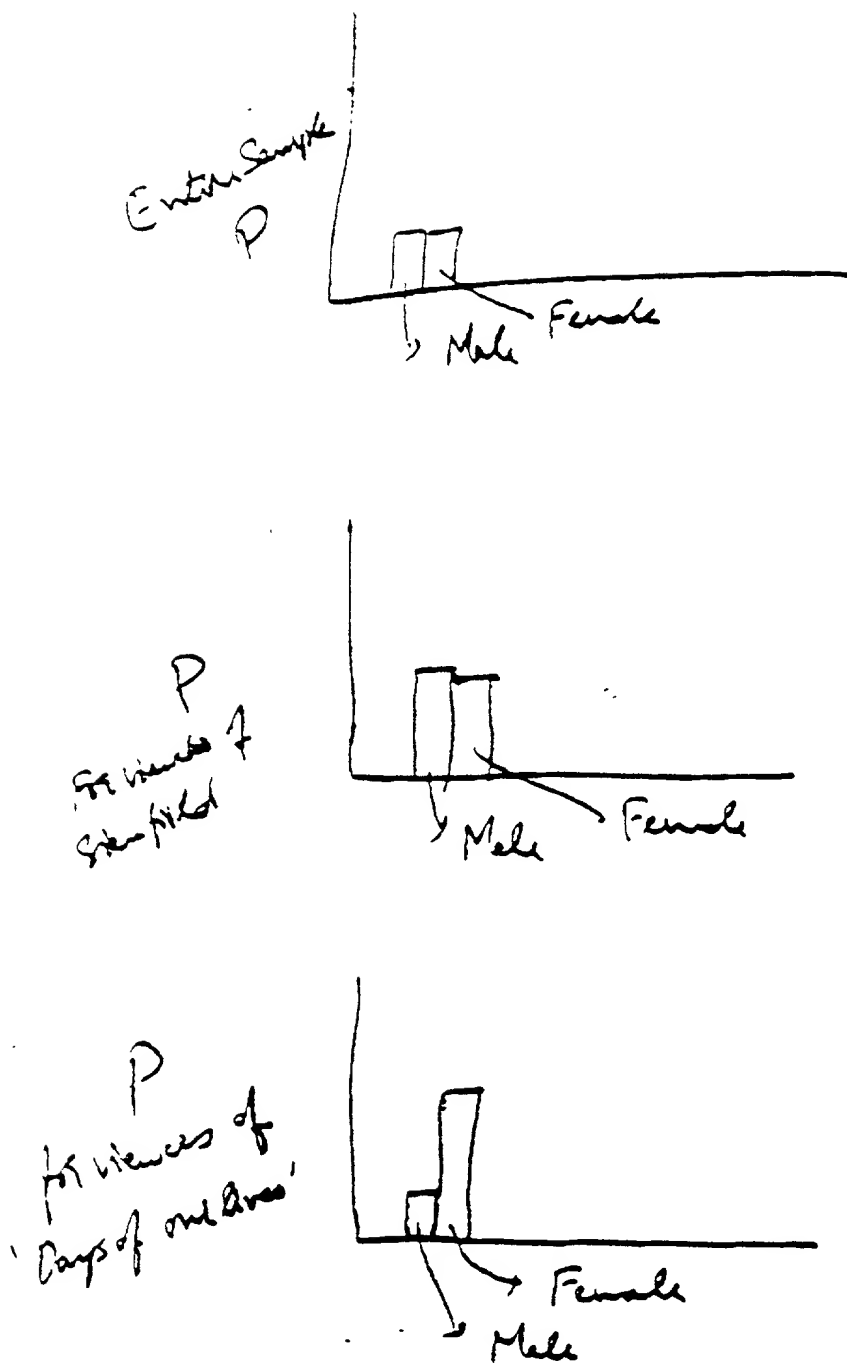


Figure 21b

System Architecture

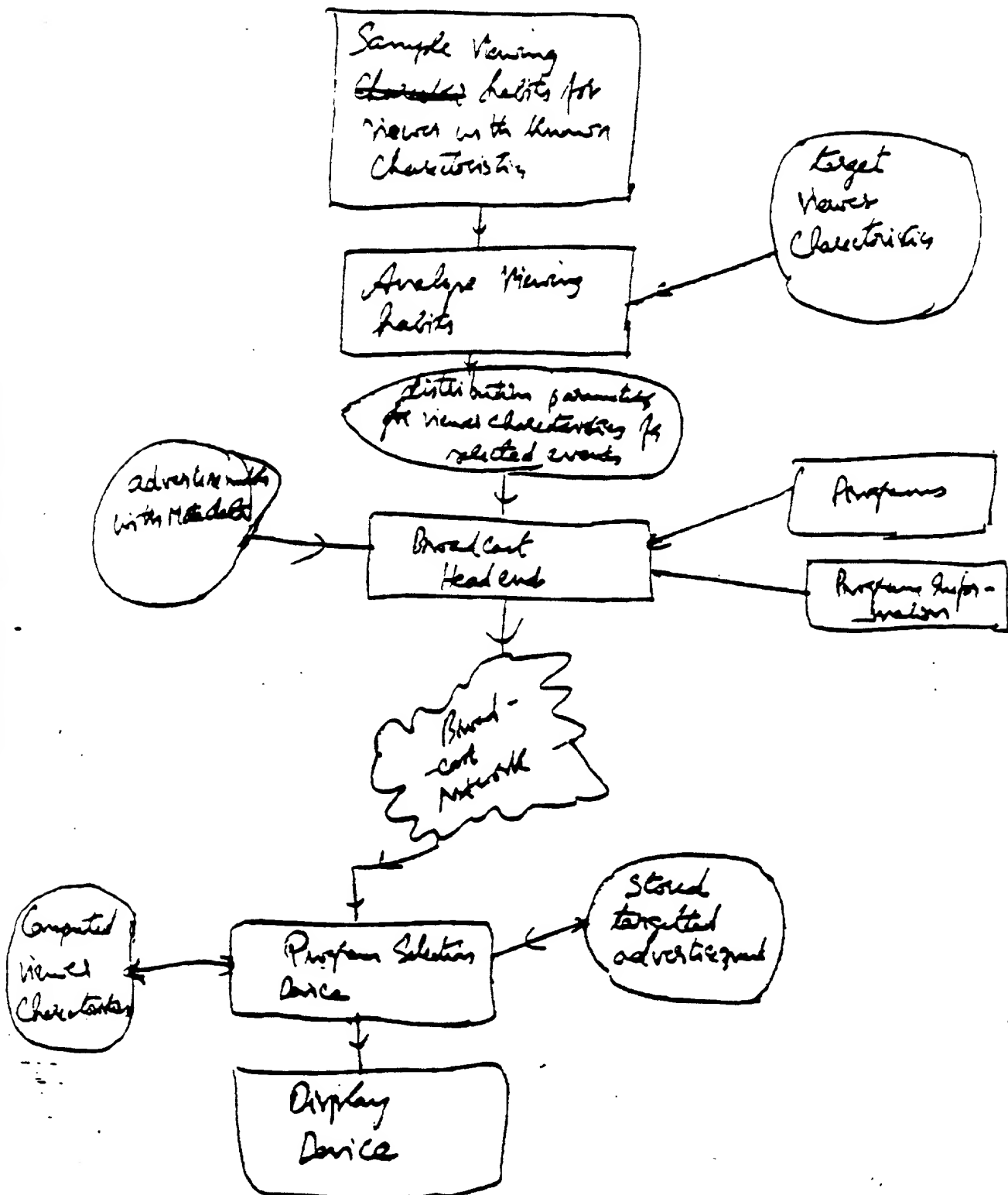


Figure 22

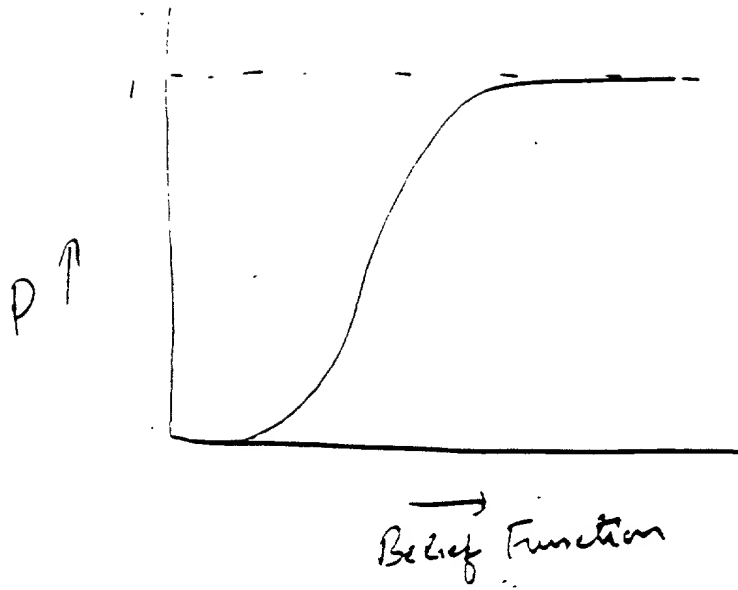


Figure 23 a

Demographic Trait Record format

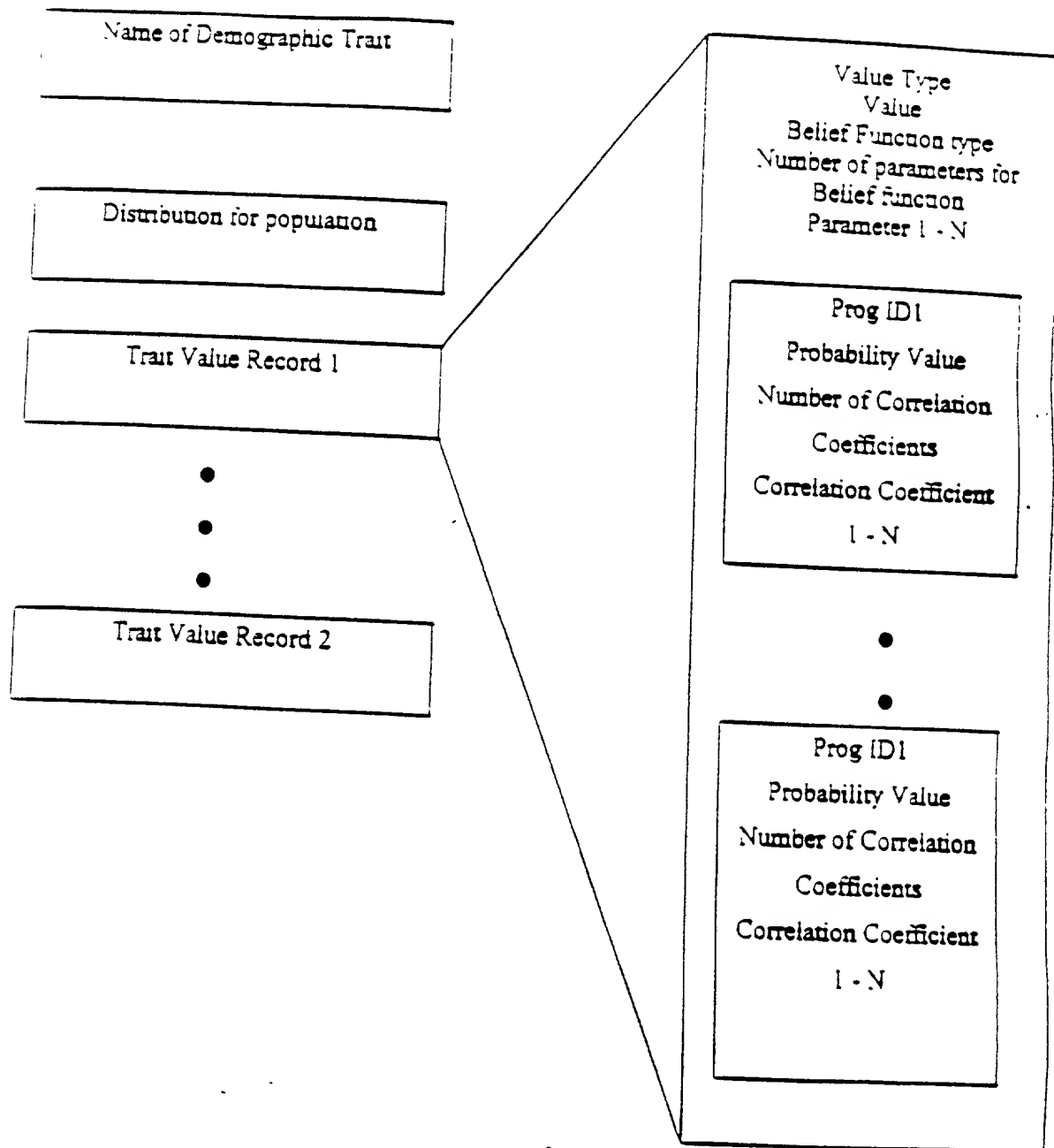


Figure 236

Advertisement Targeting Record format

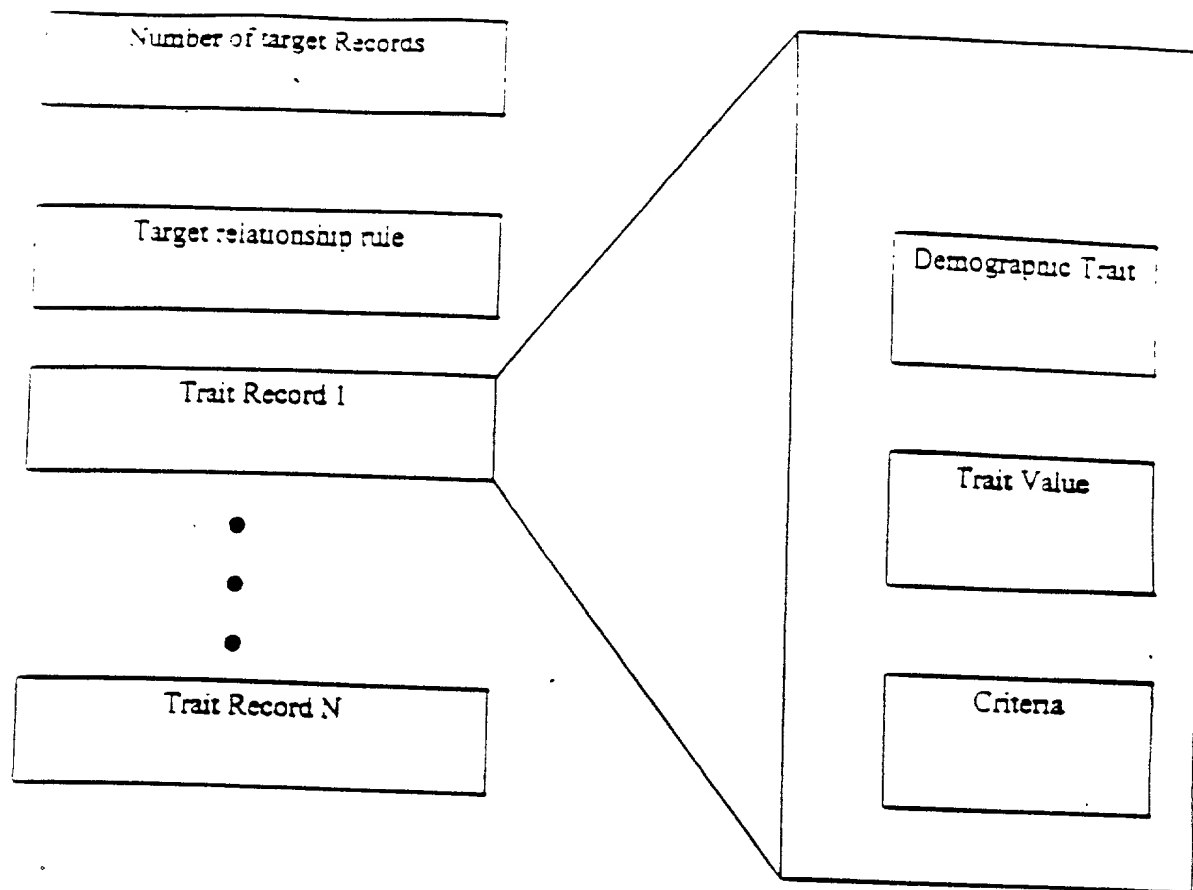


Figure 23c

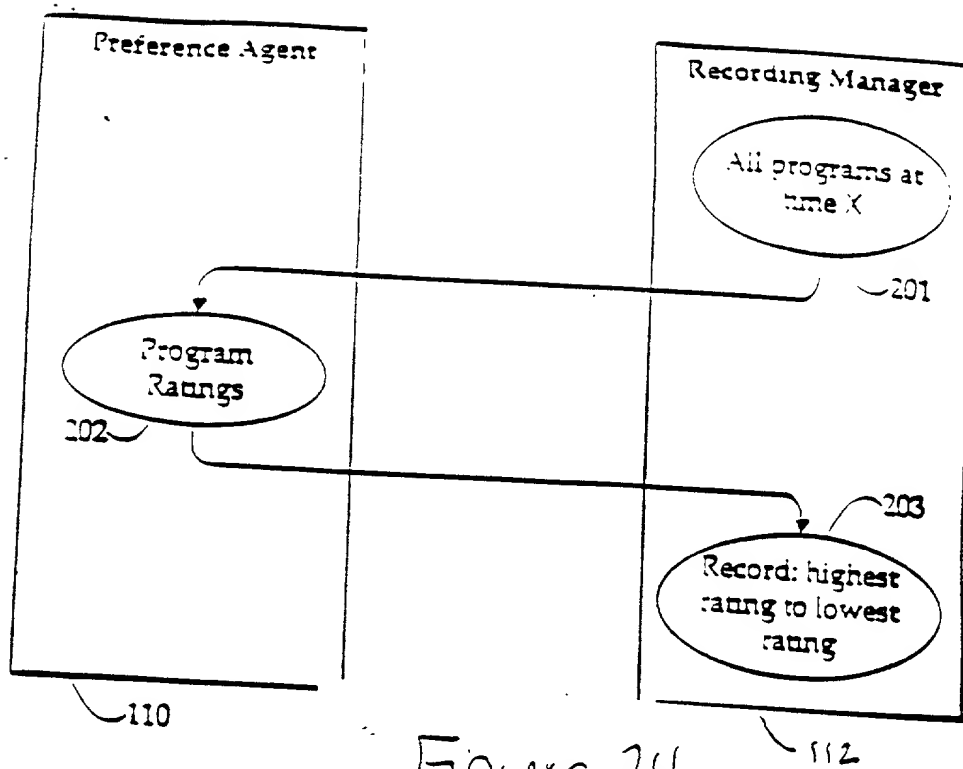


Figure 24

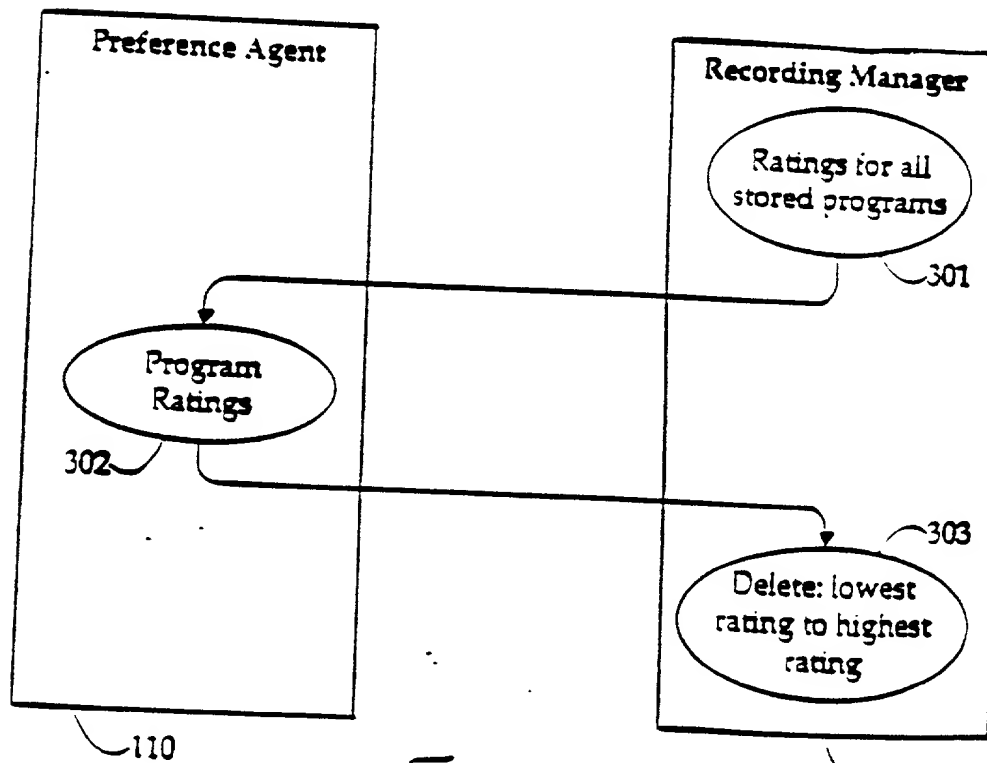


Figure 25

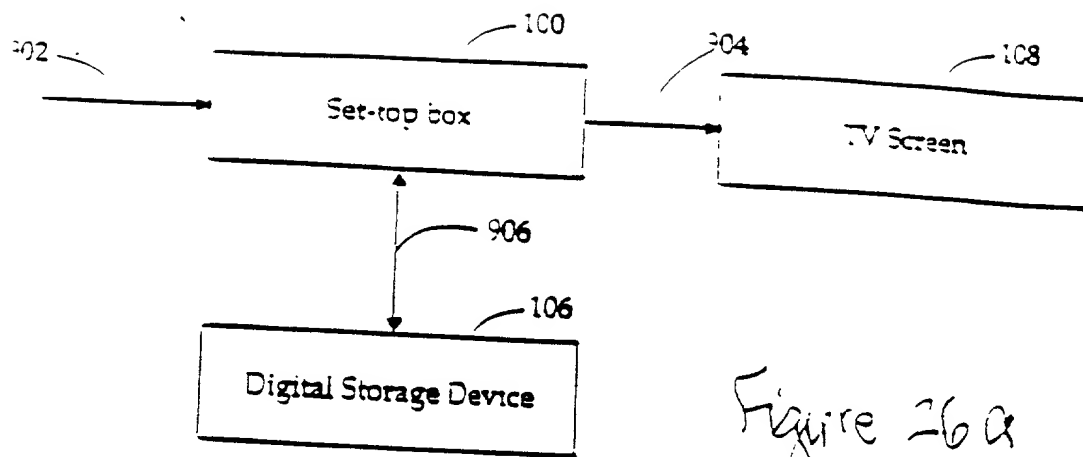


Figure 26a

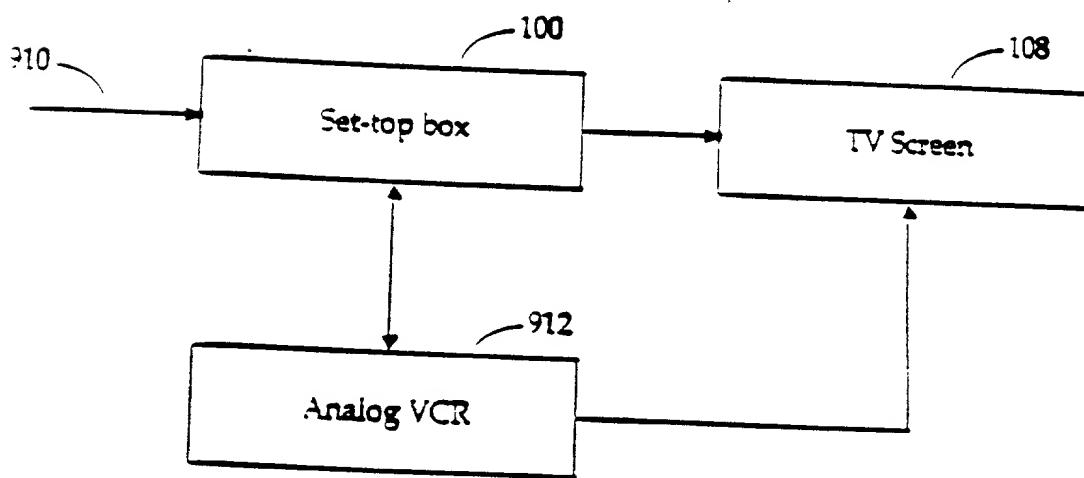


Figure 26b

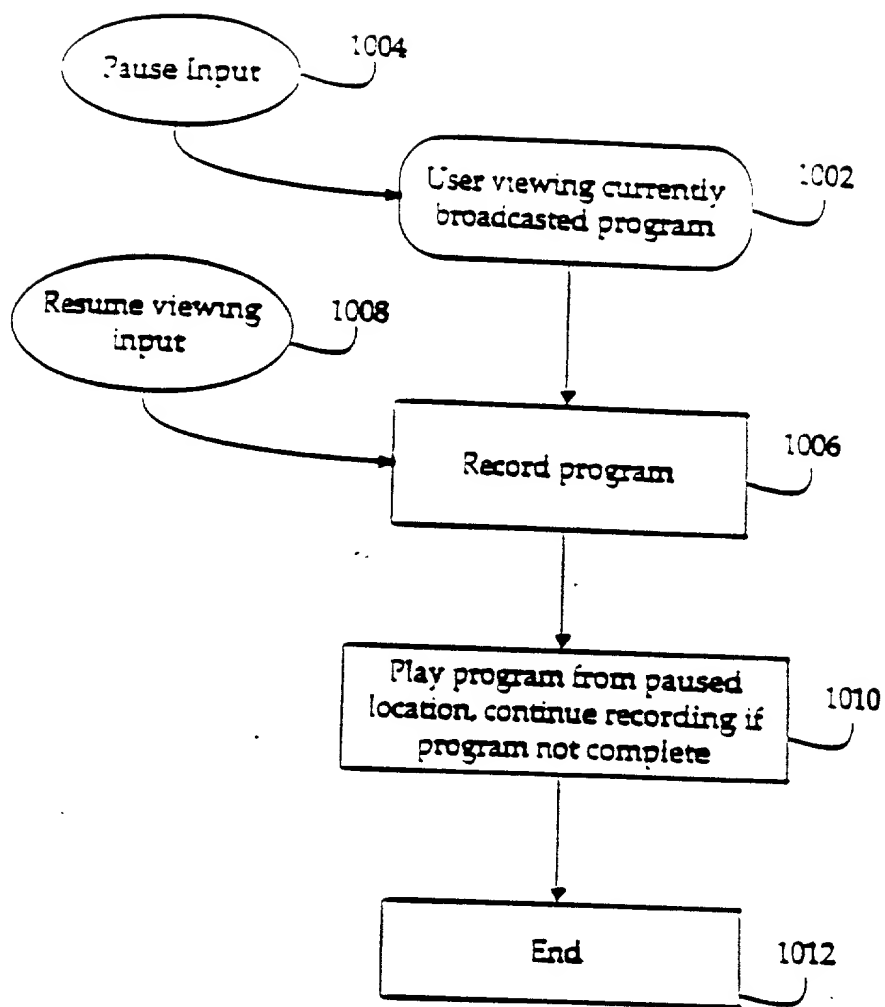


Figure 27

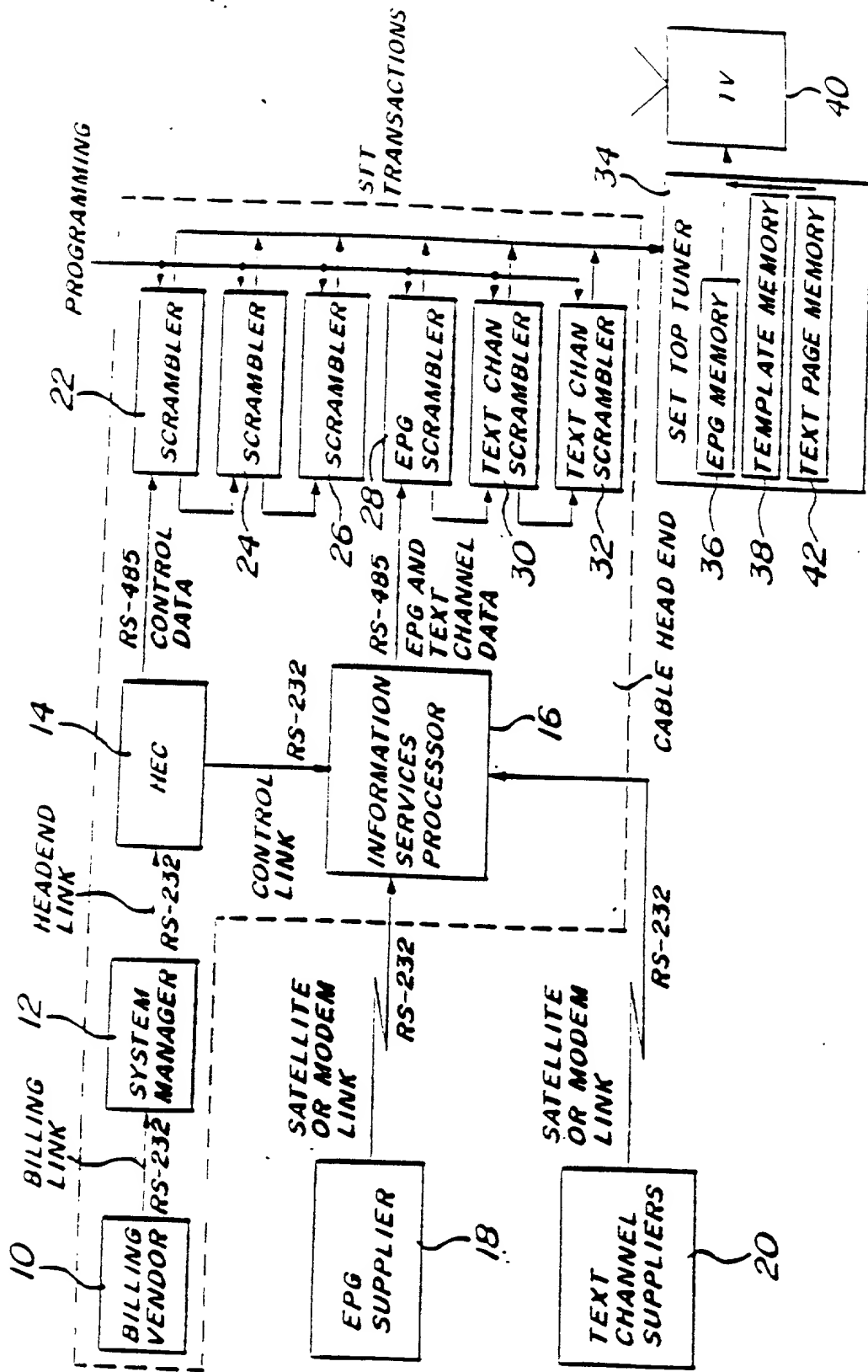


Figure 28

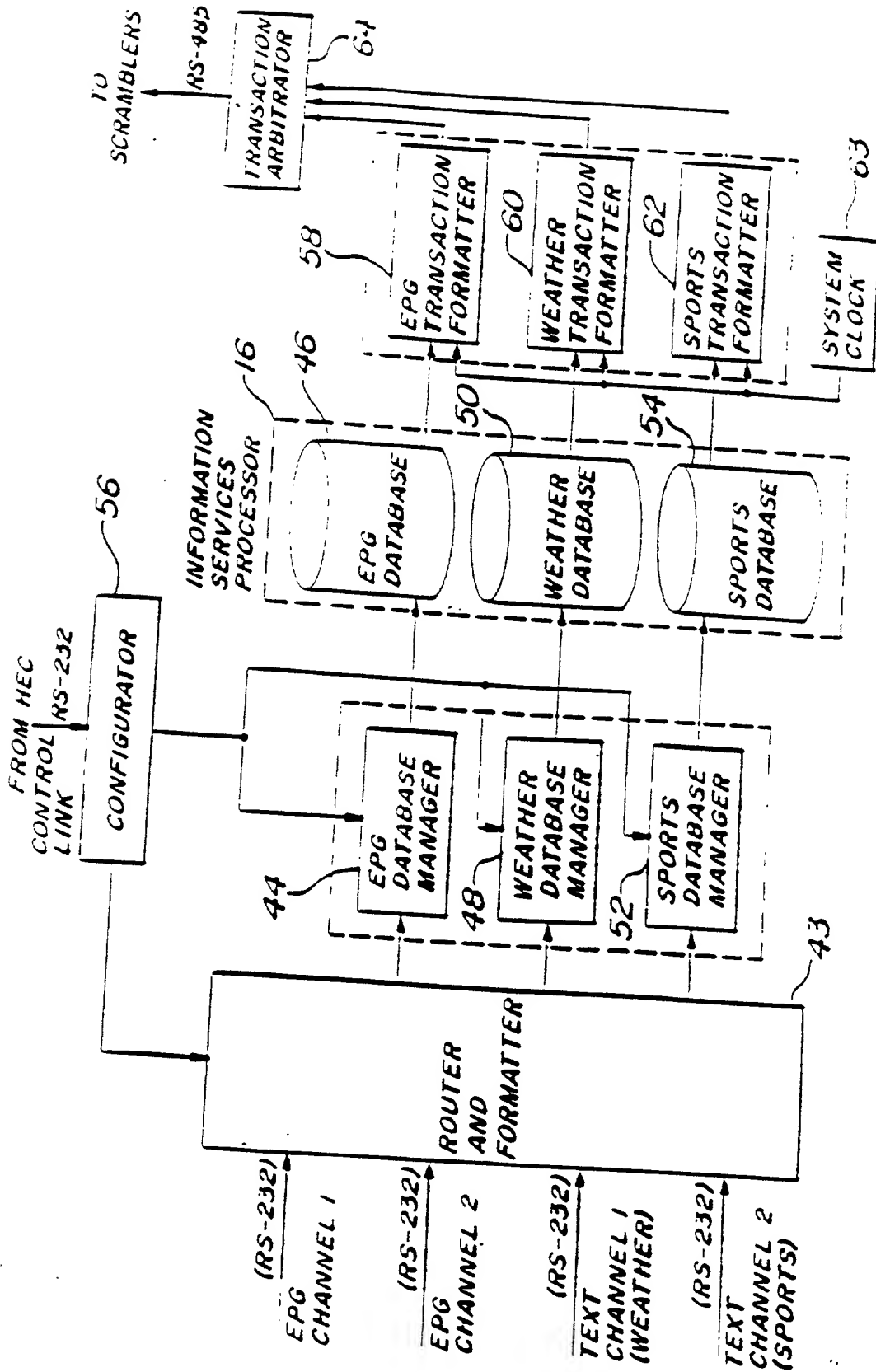
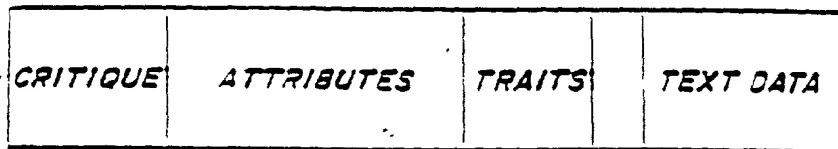


Figure 29

(INFORMATION FIELD)



RECORD KEY



COMPRESSED

Figure 30

(TO SCRAMBLERS)

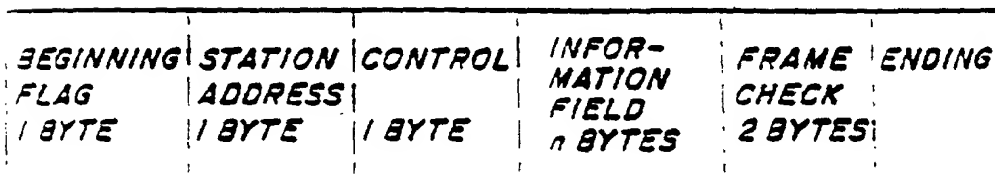


Figure 31

EPG TRANSACTION FORMATTER 58

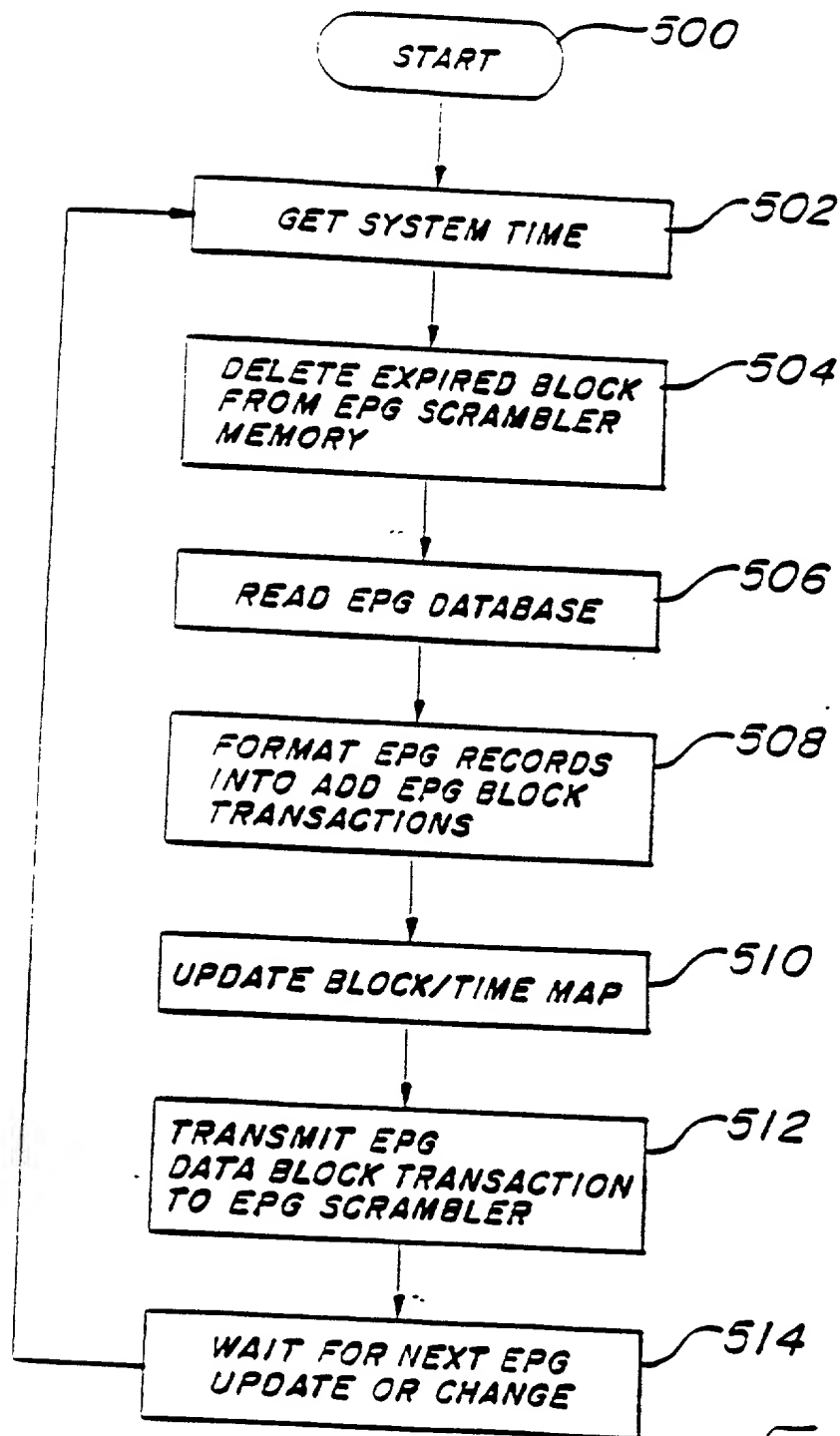


Figure 32

TEXT CHANNEL TRANSACTION FORMATTER 60,62

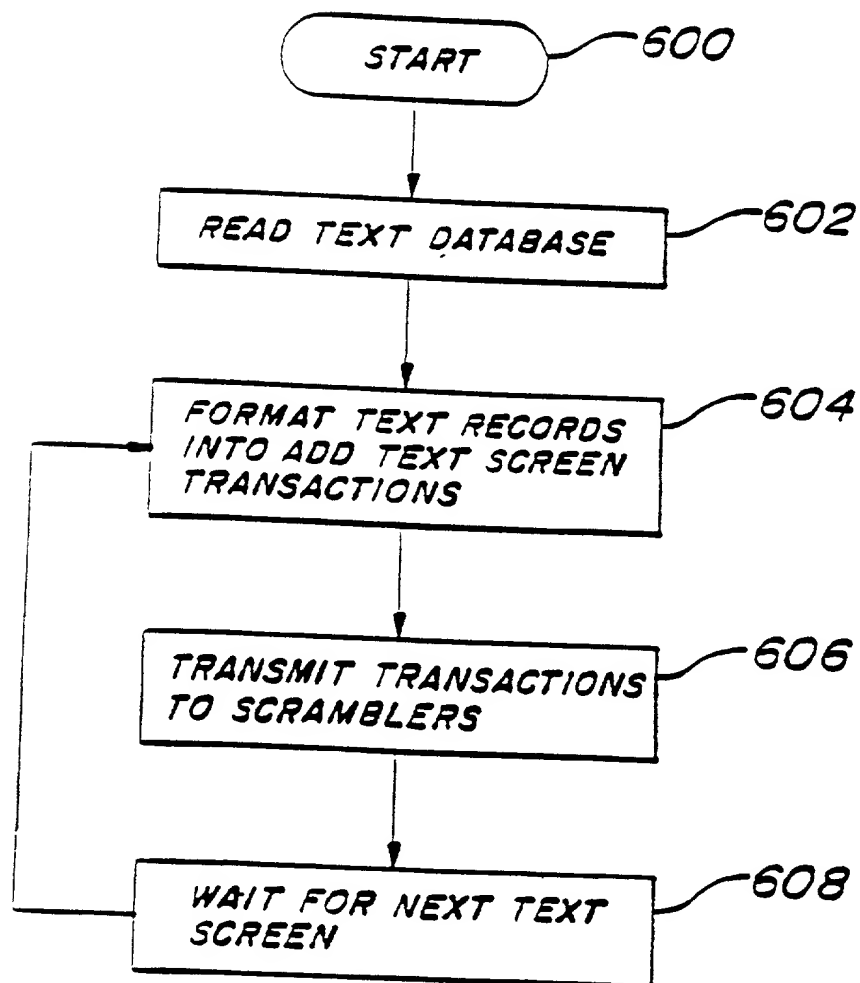


Figure 33

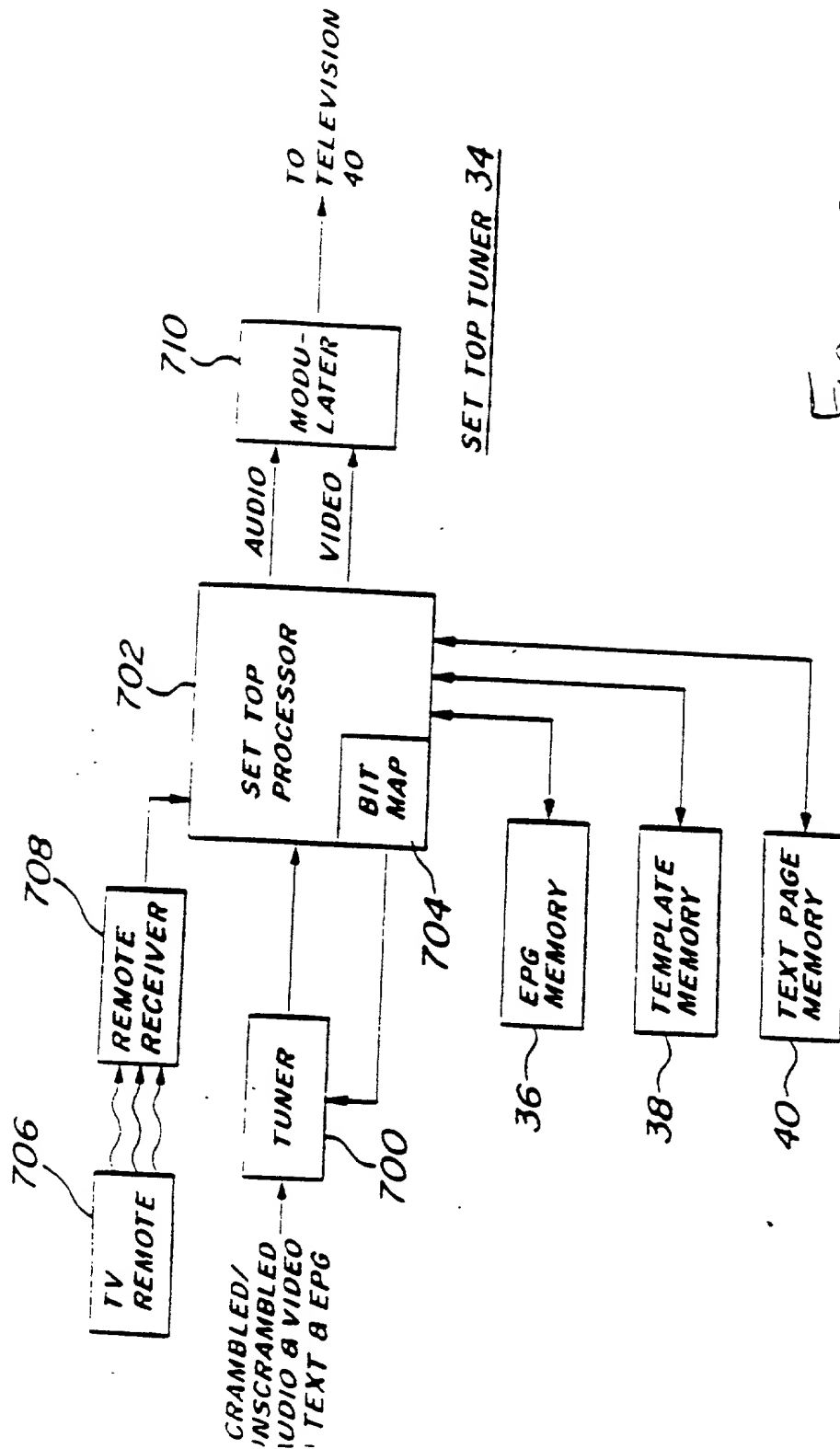


Figure 34

Process for automatically creating multiple profiles and
automatically identifying current active profiles

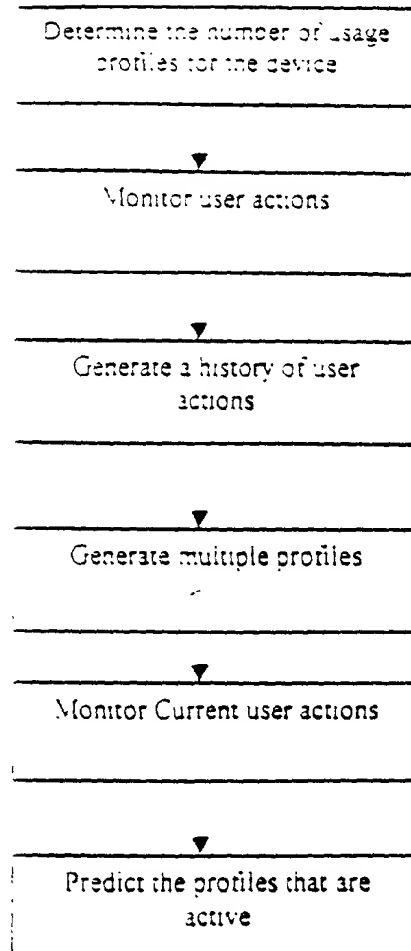


Figure 35

CIRCULAR PROGRAM GUIDE

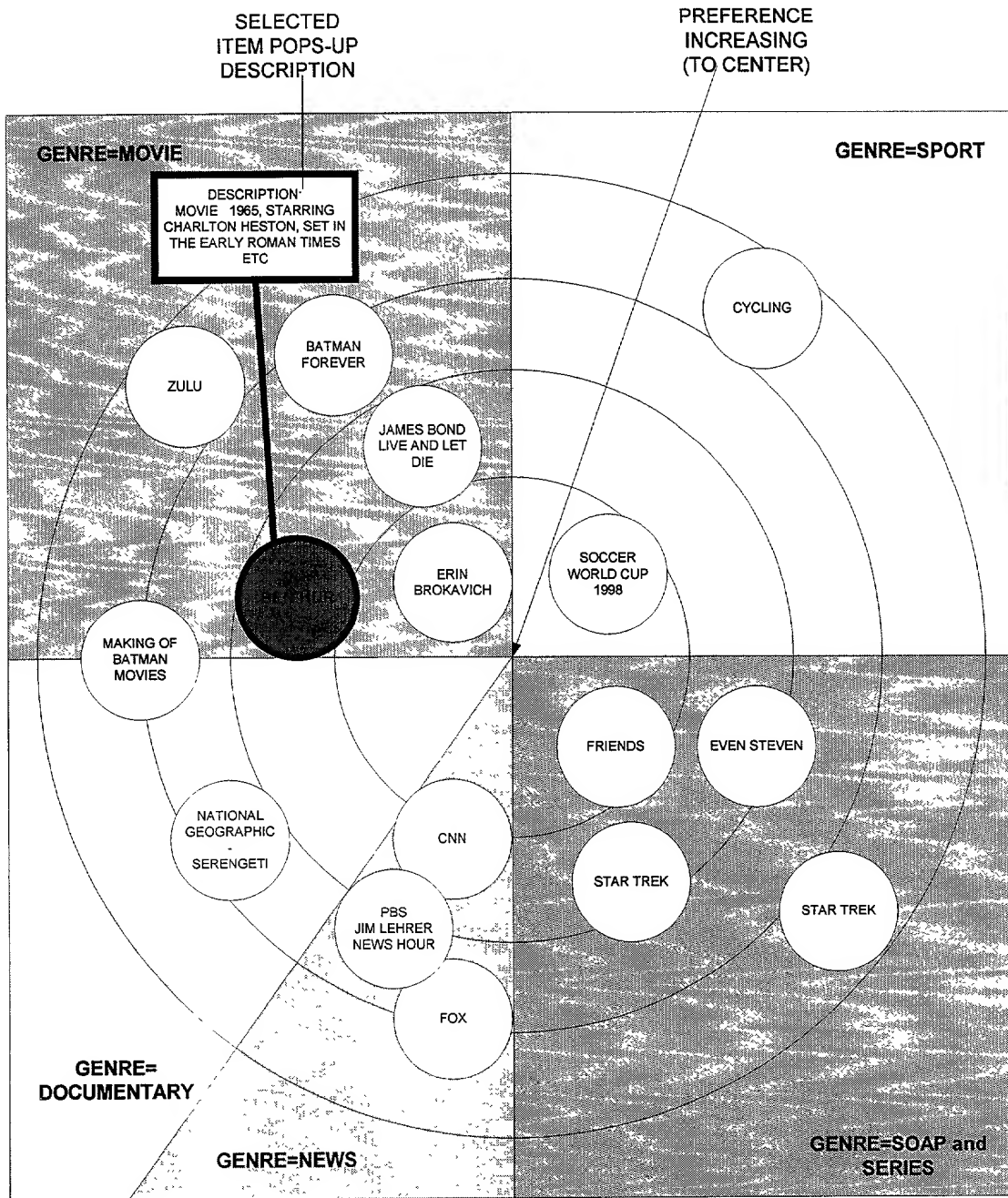


Figure 36